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U. S. DEPARTMENT OF AGRICULTURE.

OFFICE OF EXPERIMENT STATIONS—BULLETIN 213.

A. C. TRUE, Director.

PROCEEDINGS

OF THE

THIRTEENTH ANNUAL MEETING

OF THE

AMERICAN ASSOCIATION OF FARMERS' INSTITUTE WORKERS,

HELD AT

WASHINGTON, D. C., NOVEMBER 16-17, 1908.

EDITED BY

W. H. BEAL,

For the Office of Experiment Stations,

AND

JOHN HAMILTON,

For the Association.

WASHINGTON:

GOVERNMENT PRINTING OFFICE.

1909.

OFFICE OF EXPERIMENT STATIONS.

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[Bull. 213]

LETTER OF TRANSMITTAL.

U. S. Department of Agriculture,
Office of Experiment Stations,
Washington, D. C., April 5, 1909.

Sir: I have the honor to transmit herewith, and to recommend for publication as Bulletin 213 of this Office, a report of the proceedings of the thirteenth annual meeting of the American Association of Farmers' Institute Workers, held at Washington, D. C., November 16 and 17, 1908.

Respectfully,

A. C. True,
Director.

Hon. James Wilson,
Secretary of Agriculture.

CONTENTS.

	Page.
Officers and committees of the association	6
Proceedings	7
President's address	7
Address by Dr. James W. Robertson, President Macdonald College, Canada	10
Report of committee on institute lecturers	16
Report of committee on cooperation with other educational agencies	17
Report of committee on boys and girls' institutes	18
Report of committee on movable schools of agriculture	23
Supplemental report by committee on movable schools of agriculture	25
Report of committee on institute organization and methods	29
Report of committee on women's institutes	33
The farmers' institute with relation to the agricultural college. By Eugene Davenport	37
The farmers' institute with relation to the agricultural experiment Station. By E. A. Burnett	41
The relation of experiment station to extension work. By H. J. Patterson	44
The farmers' institute with relation to the rural public schools. By A. B. Graham	46
The farmers' institute with relation to normal schools. By F. H. Hall	51
The farmers' institute with relation to agricultural high schools. By F. L. Stevens	53
The farmers' institute with relation to the agricultural journals. By J. H. Connell	59
The farmers' institute with relation to the agricultural fair associations. By Alva Agee	63
Election of officers	67
Five-minute reports from the Canadian Provinces	67
Report of the executive committee	68
Report of the treasurer	69
Report of the auditing committee	69
Report of committee on address of the president	69
Report of committee on amendment to the constitution	70
Report of committee on resolutions	70
Statistics of farmers' institutes	71
Index of names	73

OFFICERS AND COMMITTEES OF THE ASSOCIATION.

President.

J. L. ELLSWORTH, Boston, Mass.

Vice-President.

G. A. PUTNAM, Toronto, Ontario.

Secretary-Treasurer.

JOHN HAMILTON, Washington, D. C.

Executive Committee.

The PRESIDENT and the SECRETARY-TREASURER, ex officio; A. M. SOULE, Athens, Ga.; H. T. FRENCH, Moscow, Idaho; FRANK H. HALL, Aurora, Ill.

STANDING COMMITTEES.

Institute Organization and Methods.

	Term expires.
G. A. Putnam, Toronto, Ontario, chairman	1909
J. D. Tinsley, Agricultural College, N. Mex	1910
J. H. Connell, Stillwater, Okla	1911

Institute Lecturers.

E. R. Lloyd, Agricultural College, Miss., chairman	1909
T. A. Hoverstad, Fargo, N. Dak	1910
B. Walker McKeen, Fryeburg, Me	1911

Cooperation with Other Educational Agencies.

K. L. Butterfield, Amherst, Mass., chairman	1909
George McKerrow, Madison, Wis	1910
G. C. Creelman, Guelph, Ontario, Canada	1911

Movable Schools of Agriculture.

J. Bracken, Regina, Canada, chairman	1909
Alva Agee, State College, Pa	1910
L. R. Taft, East Lansing, Mich	1911

Boys and Girls' Institutes.

Val Keyser, Lincoln, Nebr., chairman	1909
A. E. Chamberlain, Brookings, S. Dak	1910
F. H. Rankin, Urbana, Ill	1911

Women's Institutes.

Dr. A. Backus, Aylmer, Ontario, chairman	1909
Mrs. F. L. Stevens, Raleigh, N. C	1910
Miss Martha Van Rensselaer, Cornell University, Ithaca, N. Y	1911

PROCEEDINGS OF THE THIRTEENTH ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF FARMERS' INSTITUTE WORKERS.

Morning Session, Monday, November 16, 1908.

The association was called to order at 10 o'clock a. m. in the parlors of the National Hotel, the president of the association, Tait Butler, of North Carolina, in the chair.

After the transaction of routine business, the convention adjourned until 2 p. m.

Afternoon Session, Monday, November 16, 1908.

The convention was called to order at 2 p. m. by the president, who delivered the annual address, as follows:

PRESIDENT'S ADDRESS.

The farmers' institute being no new organization, those who are at all acquainted with institutions for the dissemination of agricultural knowledge are quite familiar with it. Its extensive growth and development in recent years are remarkable. Its permanence as a factor in our system of instruction and its more complete development are assured. It is nevertheless manifest to all who have given the matter consideration that the term "farmers' institute" means one thing to one man and to another something quite different. To some it means a medium by which the agricultural experiment stations may carry the results of their investigations to the farmer. With too many, I fear, it means this and little more. To others it signifies the best means by which the professors in the agricultural and other colleges and higher schools may get in touch with the farmer and his family and thereby be able to recruit their classes. To still others it is regarded as the best agency for arousing the interest of the farming masses in some particular public question or set of public questions. To others, again, it stands chiefly for entertainment, amusement, and social intercourse for the isolated rural population.

For a quarter of a century the institutes have been drifting, and, if the truth must be told, are still drifting. Where this drifting will ultimately land them there is little agreement, but all are confident that inasmuch as they are built on sound utilitarian lines they surely must finally reach their true haven of greatest usefulness.

In view of all these facts, it is not to be expected that anyone can accurately forecast its exact field or future position among our educational institutions, and it is not my purpose to attempt dogmatically to state its proper future relations and purposes. It is the duty, however, of each one to help to hasten the time when the farmers' institute will take its proper position and possess a well-defined and fully recognized field of usefulness among the educational institutions of the nation.

In looking over the varied fields in which the farmers' institute has operated, I find that in some instances it has overlapped the sphere of operations of other older institutions, and in cases where it has gone into fields previously occupied it has frequently been secondary or supplementary to these older institutions.

In some cases the newcomer has unquestionably demonstrated its superiority and perhaps in all case has accomplished helpful service, but in some fields it

has undertaken tasks which could have been better performed by others, and it thereby has diminished its capacity for effective work in what I believe to be its true sphere of usefulness. In other words, I believe the institute has been serving too long as the handmaid of her older sisters, with the resulting restrictions and limitations which subordinate service always brings.

For the education of the masses during early life the common and high schools not only have a prior right by occupation but possess greatly superior facilities. For those who can be induced to attend them the colleges and universities are also first in point of seniority and facilities for accomplishing the desired results. In social, commercial, and many other related fields the Grange, the Farmers' Alliance, the Farmers' Union, and other similar organizations possess superior advantages for the accomplishment of their special purposes.

But there is one well-defined field, however, in which the farmers' institute was unquestionably first and has as certainly superior facilities for doing effective work. To my mind, the carrying of agricultural information to the adult farmer and the instruction of the adult members of his family in household economics is unquestionably the true and legitimate field which, if not exclusively, should be chiefly, cultivated by the farmers' institute.

The carrying of agricultural information to the adult farmer population is a splendid field for work, and if to this be added the instruction of the adult rural masses in home economics, we have a field of sufficient scope and attractiveness to engage the activities of any organization or institution, and which is worthy of and will require its very best efforts.

It is the duty of the public schools, the agricultural colleges, the experiment stations, the Grange, the Farmers' Alliance, the Farmers' Union, agricultural fair associations, and all other agricultural organizations to give their aid and moral support to the farmers' institute, and for similar and equally good reasons it is the duty of the farmers' institute forces to give their aid and moral support to every institution, organization, or force that will make for the upbuilding of a better agricultural civilization. These, nevertheless, are not adequate reasons for making the farmers' institute the tool or servant of any of these other institutions, nor for diverting its energies from its special, more useful, and legitimate field of work—the instruction in agricultural and household lines of the adults on the farms.

In thousands of neighborhoods the adult has been taught many new things by the farmers' institute, which he has put into successful operation on his farm. It is probably true that older people do not learn so readily or change so frequently as those of fewer years, but it does not follow that they do not learn or change at all, and difficult though the task may be, it is the special work of the farmers' institute to teach them better methods, and it is well worth while.

It has been stated that the chief function of the farmers' institute is not to "instruct" but to "inspire." I would modify that statement and express the opinion that one of the chief functions of the institute is to inspire by instructing. Truly one of the chief functions of all education is to give inspiration, but I believe this inspiration is best given by imparting information that will enable the recipient to do more and get more with which to live a fuller life. How are you going to give the inspiration in any other way than by lifting to a better and broader life by the inspiring help of useful facts and principles, real information of permanent value?

In my opinion, through real instruction, and by that way only can we create an inspiration that will last long enough or have the force to carry itself into useful practice or induce the individual to go to school, college, or to another institute.

It has also been claimed that one of the chief functions of the farmers' institute is to furnish entertainment or amusement to the isolated farmer and his family. Under this impression much valuable time of the farmers' institute has been spent in music, recitations, and declamations, under the impression that this sort of entertainment or amusement is necessary in order to induce the farmer to come out and take the instruction which he needs.

I have demonstrated, to my own satisfaction at least, that this is an error, besides being a reflection on the intelligence and common sense of the farmer and his family. I do not underrate the value of amusement and pleasure in the life of the farmer and his family; but I would delegate the furnishing of such entertainment to other agencies.

The most amazing interpretation of the function of the farmers' institute which has come to my notice is that one of its important offices is to create sentiment for and secure appropriations for the financial support of other institutions. To my mind, this is prostituting the farmers' institute to an undignified and ulterior purpose, however important and useful these larger appropriations for our educational institutions may be.

I do not deny that working for larger appropriations for our agricultural institutions and actively and directly seeking to increase the attendance at our agricultural colleges are good lines of work; but I believe that the only field in which the farmers' institute can permanently maintain a position of importance is in the field of adult instruction.

That the farmers' institute is growing and increasing in usefulness chiefly, if not entirely, along instructional lines is evidenced by the greater demand for two and three days' institutes, for one and two weeks' short courses, and movable schools of instruction. The day will not come when the need for instruction of the adults on the farm will cease. Indeed, it will probably increase more rapidly than any other sort of instructional work because of the small proportion of the rural population who can receive a college education and the consequent greater need for such instruction.

It therefore seems plain to me that the farmers' institute, by concentrating its efforts on instructional work, will not only occupy the most important and attractive field open to it, but gain independence and added prestige through the greater dignity which attaches to this sort of work over that of acting as the handmaid of other educational institutions. There will then be no longer a reason for the farmers' institute serving as the tail to a kite less able to fly than itself.

The early history of agricultural colleges shows plainly that those attached to other institutions, for a time at least, suffered from the overshadowing influences of those institutions, and in my opinion the farmers' institute will more quickly come into its own when it is maintained as an independent institution free from the agricultural colleges and experiment stations, which naturally use it to promote and magnify their own ends and purposes; but all these institutions should maintain a friendly and close cooperative relationship which will be equally helpful to each.

The growth and development of the farmers' institute has not, in most instances, maintained a proper balance. As evidence of this there is the slow progress of instruction provided for the women in the farm homes. This instruction has not kept pace with that offered the men on the farms. Instruction in home economics is as essential to the development of a high type of rural civilization as instruction along purely agricultural lines.

The question of separate or joint meetings for the men and women is one on which there is likely to be differences of opinion, and it must probably be solved according to the special conditions existing in each State. For my part, I believe both plans should be followed.

While I believe that it would be well for farm women to know all about all phases of farm life and work, and that it would be equally well for men to know all about household economics and management, still I regard the field as too large and life as too short to allow both to be covered by one person. Since, therefore, it is practically impossible to know all that would be well for us to know, I believe that the separate meetings are a necessity in order that we may to some extent select for each class the instruction which will be of most immediate use. This does not mean that joint meetings should not be held. Our plan has been to hold separate meetings in the forenoon and for a part of the afternoon, which gives the women an opportunity to effect an organization and discuss those subjects of special interest to them, and joint meetings for the remainder of the afternoon and evening, at which such subjects as farm dairying, poultry culture, beautifying home surroundings, and similar topics are discussed.

After discussion participated in by A. L. Martin, of Pennsylvania; A. E. Chamberlain, of South Dakota; and D. W. Working, of West Virginia, a committee, consisting of W. C. Latta, of Indiana; G. McKerrow, of Wisconsin; and H. A. Morgan, of Tennessee, was appointed to consider the address of the president and present a report at a subsequent session. (See p. 69.)

The following address was delivered by James W. Robertson, president of Macdonald College, Ste. Anne de Bellevue, Quebec, Canada:

THE MACDONALD MOVEMENT FOR THE IMPROVEMENT OF RURAL CONDITIONS IN CANADA.

The Macdonald movement grew in part out of the farmers' institute work in Canada. It is an extension of that movement, and is along lines in which I think farmers' institute workers should seek to advance. I happen to know something of the farmers' institute work in the United States. I am in some measure a graduate of the institute system of Wisconsin. That was over twenty years ago; and since then I have known of some of the good service that farmers' institutes have done for the farmers of this continent. The farmers' institutes are working out some of the educational problems of rural life. It has been my desire to get at the heart of these problems; to help the country children to begin life in rural districts with just as fine an equipment in intelligence as the farmers' institute worker himself had to acquire after he was mature. The aim of the Macdonald movement is not to supplant or displace farmers' institutes, but to see that those laboring for the same object—the upbuilding of the country by the improvement of rural life and rural conditions—shall labor in cooperation and not in competition.

The problems of rural life which we have in Canada you have in common with us. Our rural conditions are much like yours, in soil, climate, and markets. With us, also, men are seeking to gain power through the increase of knowledge by research work, by the increase of ability to utilize knowledge through demonstration and illustration work, by improvement in the organization of existing agencies or institutions, and by adding new institutions to the old ones. I hope I shall live long enough to see the farmers' institute, one of the old institutions for the upbuilding and uplifting of the country, not displaced, but surrounded and supported by many other institutions that have grown out of it—the mother with her children around her.

The educational work of the farmers' institute is directed at first chiefly to whatever increases profits. In the beginning, if you can not show a farmer that the course or practice recommended is going to pay he does not care to be bothered with it. He does not often at first have those finer and loftier ideals of rural life that come to some of us later and stimulate us to seek improvement. For a long while you can not appeal successfully to some people except by presenting the side which pays. If you neglect that, you may miss the man altogether, and so miss helping his children.

I think the farmers' institutes may successfully assist in educating a man in the direction of developing larger capacity for taking satisfaction out of his calling. As soon as the man does real well in any one piece of work he gains a pride in doing that thing. I know of nothing better for the growth of the young man's powers than to stimulate his pride in his work. It puts the tingle of exultation and courage into him that extends to his finger tips. He looks at his work, and "Behold, it is very good." The delight in a thing well done he can not thus know except when he has made or done the thing with his own hands. Our rural schools are like yours, devoted chiefly to letters, language, and books, with not very much toward helping the boy to cherish a love for labor with his hands. A school that destroys that love in a boy does him permanent harm. A healthy normal boy from the age of 7 to 14 loves manual activity. On the other hand, hundreds of older boys have acquired a distaste for manual labor. A school that fails to encourage children to cooperate intelligently with each other in school activities does them serious wrong, particularly for life in a nation where the people have self-government. We have tried in the progress of the Macdonald movement to do something toward keeping alive and intensifying the love for manual labor during the school years in the schools themselves, and also toward developing desire and power for cooperating with good wills.

Manual training.—While aiming at the improvement of rural schools, we first gave object lessons of manual training in town schools maintained for a period of three years by the Macdonald manual training fund, without cost to the pupils or to the public. Unless this demonstration had been successful in the towns, the rural citizens would not have been willing to accept the practical manual teaching for their home schools. The Macdonald fund provided manual

training for boys in the public schools of twenty-one places. It paid for the equipment, imported twenty-seven teachers from England, Sweden, and the United States, paid their salaries and the salaries of assistants whom they trained, and maintained the centers for three years. Then the people, through their departments of education and school boards, took them over; and now there are 20,000 boys and girls in Canadian schools receiving the benefits of manual training in their regular courses under the public-school authorities. We could not have started manual exercises in the schools for the country boys if we had not begun in the city first. It is worth while remembering that the rural population usually follows what is called public opinion, and, in the main, public opinion is a town-made thing.

Manual training develops habits of industry and leads the children to adjust their acts to desired ends. It begets a sense of responsibility, in response to which the children are stimulated to exercise their powers. It brings about the habit of appreciating work done by the hands. Fine feelings have a physical basis, and so also has a sense of honor. The marks of education are not only in the ability to use good language, or to solve a mathematical problem, but they are in the qualities of body, mind, and spirit.

Seed-grain competition.—We had advocated for many years the improvement of seed grain as a means of improving rural conditions. But the seed fell on stony places, it fell among thorns, and in some cases it fell on good ground. I wondered what could be done to bring about the change so much desired—to get the boys and many of the girls to work for the improvement of rural conditions by selecting the largest heads from the most vigorous plants of oats, wheat, and barley for next year's seed. I had given a few prizes to boys who would pick out the hundred biggest and best heads from the oat and wheat fields on their fathers' farms. I thought if I could get these boys chasing after the better seed from the big heads that the boys would gain something valuable to enrich their lives as well as to increase the crops. I went to see Sir William C. Macdonald and outlined my plan. He told me to go ahead. It cost him $10,000 to give prizes sufficient to make an adequate sensation, a sensible sensation on the rural population, the sort of sensation that wakens up the children and grown people to new activities. He provided the money with all good will—my little $100 came back a hundredfold—to offer as prizes to boys and girls to encourage them to carry out the plan of selecting the largest heads of the most vigorous plants and growing seed from those heads on a plat by itself, now called the hand-selected seed plat.

The yields from those crops of 1903 compared with those of 1900, on an average for all Canada for spring wheat, showed an increase of 18 per cent in the number of grains per hundred heads, and 28 per cent of increase in the weight of grains per hundred heads. In oats the figures were 19 per cent of increase in the number of grains per hundred heads, and 27 per cent of increase in the weight of grains per hundred heads. These are the results from several hundred seed-grain plats operated by boys and girls. Altogether over 1,500 entries were received for the competition. Out of that number 800 completed in full the first year's work, and 450 of them completed the three years' work in a satisfactory manner. The operations of the competitors were inspected from time to time during the three years. The parents of the 450 competitors who completed the three years' work were found, as a rule, to be among the best farmers in the localities where they resided. Ninety-two per cent of the reports said on behalf of parents and guardians that the quarter-acre, hand-selected seed plats carried crops decidedly more vigorous and heavy than the crops from the same varieties of grain grown on the same farm in the same season from unselected seed. The plats and farms with these seed-grain plats were visited in many cases by an official of the department of agriculture. It was learned from them, from the operators themselves, and from the neighboring farmers, that the crops grown on these hand-selected seed plats were heavier and better, and that the plants in them were more vigorous than those produced on the other parts of the farm from the ordinary seed of the same variety without systematic selection.

As direct and indirect results of that competition there has been a remarkable development in the cultivation and systematic selection of grain of high quality for seed. The seed branch of the department of agriculture itself was a direct outcome of the Macdonald seed-grain competition. The Parliament of Canada votes over $50,000 per annum to carry on the work of that branch, for the im-

provement of seed, and the securing to farmers, by legislation and inspection, of reasonably clean grass seed and clover seed.

Many of the farmers on whose farms the competition was carried on were formed into the Macdonald-Robertson Seed Growers' Association, out of which grew the Canadian Seed Growers' Association. The annual reports of its proceedings contain a marvelous record of valuable public service. Leading members of the association report distinct and definite gains from the method of selection which has been followed, as, for example, the size and quality of the kernels definitely improving; the strains of selected seed maturing more evenly; the strains becoming better adapted to local conditions; varieties being kept pure; the strains becoming more resistant to disease and gaining in productiveness. All these are highly desirable, and give added value to the crops in every case.

I made inquiries from the seed branch of the department of agriculture and from members of the Canadian Seed Growers' Association. I gathered from their estimates that one of the direct results of the seed-grain competition was an increase in the value of the grain crops of 1906 to those who were directly affected by the seed-grain prizes to the extent of at least $500,000. This is high finance for you, high finance by a man of lofty intelligence and spirit—5,000 per cent on an investment of $10,000; and the best of it all is that Sir William Macdonald has not sought and did not receive a single dollar of return for himself from it. What will the increase in wealth and other benefits be when the principle is applied to the farms of the continent? That is laying up treasures which go on gathering and diffusing benefits forever and ever for the people. Every farmers' institute that could get two farmers to follow that system of selection for a number of years would thereby acquire new material for giving high-grade instruction in an institute, using not something far off, but close by, and directly helpful.

School gardens.—Under the Macdonald rural schools' fund arrangements were made for providing a school garden at each of five rural schools in each of five provinces. A trained instructor was placed in charge of each group of five gardens and of the nature-study work at them. He spent one day at one school and the next day at another. These trained teachers had been chosen from the several provinces, organized into a class, and sent to your finest universities for special training. They went to Chicago University to be under Professor Coulter for plants and under Professor Jackman for teaching; they went to Cornell University for nature study under Professor Bailey and his assistants; then to Columbia University in New York City; and afterwards to Clark University in Massachusetts for inspiration and instruction from Professor Hodge. Lastly they took a short course at our own agricultural college at Guelph, Ontario. The cost of this was met by Sir William Macdonald.

At the school gardens an effort is being made to give the children information and training in three important matters in connection with agriculture, viz: (1) The selection of seed, (2) the rotation of crops, and (3) the protection of crops against disease and insects. It is really industrial education. Children find out something by doing, observing, and recording results. All worthy progress in matters that are worth thinking about springs from learning the lessons of consequences.

Each pupil has a plat in the school garden and each individual child has a partnership interest, as though he owned the plat in association with other children. This teaches them cooperation. They become familiar with the three big things that all farmers' institute workers should make clear: The use of selected good seed on properly prepared soil; a suitable rotation of crops; and the protection of crops against weeds, insects, and diseases. The school garden is one way of making rural life attractive, while it prepares the pupils to be efficient. It is a step which actuates the people to pay more to make the schools efficient. The best education in rural schools should make the people like rural life and also enable them to make it profitable. The best way to make any workman like his work is to make him understand it. The beginnings of all that and much more are laid in the schools with school gardens, manual training, and household science.

I cite only a few instances of the results from the experimental plats in the gardens managed by the children themselves. In Prince Edward Island, at Tryon, the children obtained an increase of 32 per cent in the yield of wheat from a plat on which selected seed was sown, as compared with a plat alongside for which the seed had not been specially selected. In Prince Edward

Island, also, the children obtained a yield of 17 per cent increase in a barley plat after clover as compared with a plat alongside where no clover had been grown. At most of the gardens two plats, side by side, were planted with potatoes under similar conditions. The treatment of both plats was alike, except in regard to the spraying with Bordeaux mixture to prevent blight. One plat in each garden was sprayed with the mixture three, four, or five times, as the case might require, whereas the other plat was left unsprayed. In every case the yield of potatoes from the sprayed lot was larger than the other. The following list shows the increased yield resulting from spraying at six gardens: Knowlton, Quebec, 111 per cent; Richmond, Ontario, 100 per cent; Carp, Ontario, 85 per cent; March, Ontario, 81 per cent; Guelph, Ontario, 43 per cent; Brome, Quebec, 41 per cent.

At the high-school entrance examinations for the county of Carleton in July, 1906, 49 per cent of the candidates passed from schools where no school gardens had been established. From the five Macdonald schools, where all the candidates had been engaged in school gardening for three consecutive years, 71 per cent passed, and most of them with high standing.

Consolidated schools.—In addition to the undertakings I have mentioned, the Macdonald movement included the establishment of four object-lesson consolidated schools, and financial assistance for their maintenance during a period of three years, which period was afterwards extended for three more years. At these schools, children from the surrounding country, which was formerly served by single district schools, were gathered to one central school. That made it practicable to have all the ordinary branches well taught and to enrich the course by nature study with school gardens, manual training, and household science. The average daily attendance was increased by 50 per cent.

Notable results have followed in several of the provinces from these object-lesson consolidated rural schools. Doctor Mackay, superintendent of education in the Province of Nova Scotia, writes that in his province 53 schools have been consolidated into 22 effective ones. In the Province of New Brunswick there are 4 large consolidated schools, each with nature study and school garden, manual training, and household science. The provincial government pays half the cost of conveying the children and gives other special grants.

Macdonald Institute at Guelph.—Sir William Macdonald gave the sum of $182,500 to provide buildings and equipment at the Ontario Agricultural College, Guelph, to train teachers for this "new education." Besides serving that purpose the institute has become a headquarters for manual training, for household science, and for providing short courses of instruction and training for farmers' daughters and others in cooking, sewing, domestic art, and other branches of domestic economy. Two buildings were erected. Short courses of instruction in nature study and school gardens were provided without fees to teachers. The governments of four eastern provinces where the consolidated schools were established gave scholarships to enable teachers to attend. Over 200 teachers have already taken these courses. When pupils who pass through consolidated rural schools go on through the normal schools, each with advanced work and suitable professional courses in manual training, nature study, and household science, they will be thoroughly qualified to carry on this better system of education.

Macdonald College.—Macdonald College has grown out of these attempts and accomplishments, these trials and experiments and evidences of progress, as well as out of Sir William Macdonald's keen desire to help the rural population to build up the country and to make the most of it and of themselves. In some measure it grew out of the school-garden movement and the consolidated schools, to serve as a headquarters for the training of leaders. In some measure it grew out of the manual-training movement, which is a first necessity in the general education of pupils if they are to profit by technical and industrial education afterwards. In some measure it grew out of the oft-expressed desire on the part of the educational leaders over the whole Dominion for such advancement and improvement of education for rural communities as would not only prepare the children for life at its best in rural occupations, but would also satisfy the people as being the right training for their children. In consequence, it was founded, erected, and equipped for the following, among other purposes:

(1) For the advancement of education; for the carrying on of research work and investigation and the dissemination of knowledge, all with particular regard to the interest and needs of the population in rural districts.

(2) To provide suitable and effective training for teachers, and especially for those whose work will directly affect the education in schools in rural districts.

That is the way Macdonald College came into existence. It required as founder a man who was great enough in his intelligence, in his discernment, and in his sympathy and love to cooperate with the people and their leaders. It took much money. It is very difficult to spend money wisely, without waste. One of the hard tasks is to spend money so that it will build up and not break down. For myself, I am sure to realize my father's prediction that I shall die reasonably poor; and Sir William Macdonald, whether dying rich or poor, will leave behind him a people not only richer in material possessions because of what he has done for them, but greatly enriched in intelligence and in opportunities for obtaining satisfaction in life for themselves and their children. He has invested in the lives of the people and for their children and their children's children unto many generations.

We who are Scotch and British have great joy in knowing that thousands of millions of wealth have come to you in the United States through agricultural progress. I know of nothing better in our present stage of civilization than that those who know, and those who have, and those who can, should use their talents for the benefit of those who have less power and less opportunity than themselves. To advance the education of the people is the highest privilege, as it is the most important duty of statesmanship. Would parliaments and legislatures and county councils, and the whole list of them, be worth while unless they led toward the fruit of better education? Of all the forms of help which a government, representing all the people, may with safety and benefit give to individuals, the best are those which help to develop intelligence, power, ability, skill, and cooperation with good will. These are the fruits of education.

The need of the century.—A feeling of restlessness, of change, of chafing under existing conditions, is abroad among the people. This is not wholly new, but there is a comparatively new feature in the unrest. Instead of the movement being all cityward, there is now a tendency, an instinct, an inclination to get back to the land, to stay on the land for the sake of the homes and the families, for the sake of health and security in opportunity of employment, and for the advancement of worthy education. Through the great advances which have been made in the control of natural forces there is growing up an intelligent preference for life on land by educated people. That condition again calls for modification in education in order that they and their children may be able to utilize the personal experiences of the schools in making the best of their lives and opportunities afterwards.

If our future is to be satisfying, it must needs be that the teacher shall be recognized as a leader and not merely as a teacher of letters. For leadership he must have powers of sympathy, insight, and interpretation. To secure a following of the people, as well as of the children, he must be possessed of skill, scholarship, and energy; and with all these have a character animated by enthusiasm, unselfishness, and purpose to serve. National suicide lies in the direction of belittling the teachers. National safety and progress in all worthy ways must follow from competent leaders, trained into ability to meet the needs of the people under conditions arising from the old in human nature and under circumstances created by the new in man's ever-increasing control of Nature and of human nature.

The culture of education.—The newer education, no matter how new it may be, must still stand for culture. But it must promote culture and the acquisition of knowledge as means and not as ends in themselves. Culture is almost as elusive a term as education itself. The man on the farm gets some light of its intrinsic nature from the study of *agri-culture*. To him culture stands for crops (the best in quality and largest in quantity that can be obtained), the suppression of weeds, insects, and diseases, and the increase of fertility and beauty.

At various times, and with various persons, different motives have led parents and children to seek education under the guise of culture. Perhaps one of the most powerful of these was the hope that education and culture might deliver the boy from the need of working hard—might give him a chance to escape hard labor. Any parent or child who seeks education for that reason finds it a disappointment, a delusion, and a snare, both as a means and as an end. To seek to escape one's share of toil in life is really to wrap one's talent in the napkins or cerements of the tomb. It is burial before death.

Another motive that sometimes prevailed was that through culture one might find an occupation socially more highly thought of than otherwise, and might obtain as much as possible of material good in life for as little as possible of service. When James Russell Lowell said, "Every man is as lazy as he dares to be," he might have added, "Every man is as selfish as his education lets him be."

Education is for the benefit of the pupil as an individual, as a coming citizen, and as one link in the chain of life. The powers resulting from it may be applied to the improvement of (1) the home and its comforts, conveniences, safeguards, and spirit; (2) the occupation whereby a living is earned, and security in its opportunities, satisfactions, and remunerations; and (3) the social relationships in order that there may be an increase of good will and cooperation.

As a means toward that end, schools are required in which children work with their hands on tangible things, and can themselves take the initiative in tasks which are mutually helpful to the children and to the relationship of the school to the homes. By means of such schools there would be conserved a love of manual labor, a love of ideas and learning, and a love of one's fellows. These foster and nourish worthy enthusiasm for all good things. It would be well to have in the course of training in such a school difficulties to be encountered and overcome somewhat similar to those of later life. That may be stated as a good reason for commending manual training, household science, and nature study with the school garden. These lend themselves to the graduation of difficulties, to situations in which children learn from each other, and to experiences which cultivate the imagination and at the same time develop executive ability. After a few centuries of such schools one might expect men and women to be on the average the peers of Tennyson and Washington, or of Florence Nightingale. What would not the peaks of human life be then? It may not be long before the courses of study in our public schools provide such fair balance for the application of children's activities that time-tables will be arranged, so far as they provide for particular subjects, with one-quarter of the whole time devoted to doing things with the tangible, one-quarter to language, literature, and history, and the remainder to mathematics and nature sciences.

Ever advancing.—One is not infrequently asked: "Why trouble about this elusive thing called education? Why bother about schools and children?" Chiefly because we are trustees of the human heritages and of the National resources. It is ours not merely to transmit unimpaired, but to pass on greatly improved, if you will, the quality of life, the stores of knowledge, ideas, and ideals, the wealth in usable, humanized forms, and the lessons of experience as embodied in laws, institutions, and customs.

I know farms in the United States that are not only profitable to their owners, but are also beautiful to those who pass. Take these as illustration farms, and then let them multiply—let them multiply and replenish the earth. I often think of a consolidated school in Ohio that I saw many years ago. I went home with my mind made up that we would have consolidated schools like that, only better. The object lesson took some money and some work. I have told you something of part of the result. The object lesson is particularly fine when you get an illustration farm and an illustration school in the same locality. They make for an evolution in social life and in all the organizations and activities that a rural community maintains. What do they do? They exhibit possibilities, they set new ideals, they awaken dormant hopes and powers. They give promise of a new life on a new earth.

The verities of what any people have been or have done are summed up in the children and their opportunities. The supreme test of human progress is the quality of child life and its opportunities for wholesome development, happiness, and satisfaction. It is worth while to help to bring about one really good rural school, in every way adapted to the needs of the people of the locality. It is worth while to endeavor to have such a school repeated, over and over again, until the whole land is in the way of being transformed by their influence. It is worth while to try to bring about an illustration farm, in every way providing satisfying occupation in a rural district at its best. Such a farm would cause its essential features, and the fundamental principles that determine its quality, to be repeated and applied over and over again. Wherever it prevailed would thereby become part of a new earth. It is worth while to try to have an illustration rural home at its very best in all its

appointments, in all its activities, and in all its spirit. Where the school, the occupation, and the home are each at its best, and in numbers at their very best in any locality, there you would have an illustration rural community worth studying by all men who are concerned for the weal of their fellows. Where it prevailed would become part of the new heaven and of the new earth wherein dwelleth righteousness. To have seen such places, to have known their real merits, would bring to every intelligent toiler fresh confidence, renewed courage, and enlarged enthusiasm for the betterment of education and for the improvement of conditions for rural life.

On invitation, Secretary Wilson and Dr. A. C. True, Director of the Office of Experiment Stations, addressed the convention, welcoming the delegates to Washington, and extending the courtesies of the Department of Agriculture.

The convention then adjourned until 8 o'clock in the evening.

Evening Session, Monday, November 16, 1908.

The convention was called to order at 8 p. m., the president, Tait Butler, in the chair.

On motion it was agreed that the statistical reports be filed with the secretary without reading, to be printed as a part of the proceedings. (See pp. 71, 72.)

Reports of standing committees being next in order, T. L. Calvert, of Ohio, chairman of the committee, presented the following report:

REPORT OF COMMITTEE ON INSTITUTE LECTURERS.

Farmers' institutes were organized for the advancement and promotion of the interests of farmers, and it must be conceded that no movement was ever started that has done more to upbuild the agricultural interests of the country than their establishment.

Not only have they created among the farmers a tendency to breed better stock and to increase the fertility of their soil, but they have also brought farmers and their families to exchange ideas, and have been the means of introducing grace and culture into many rural homes.

We often hear it stated that the average institute lecturer is not keeping in advance of the people he is expected to instruct. Doubtless it is much harder to keep in advance or even abreast with most of the audiences to-day than it was a few years ago. This is due to the fact that the institutes have caused farmers to study, read, and think more than formerly, and with bulletins, agricultural reports, and farm papers delivered daily at their doors, they have opportunity to keep posted on all matters of interest and importance. Such being the case, it is certainly very necessary that the institute speakers shall avail themselves of every opportunity for keeping thoroughly informed along all lines which they are endeavoring to teach.

The utmost care should be taken in the selection of institute speakers. When a person, firm, or management of some business enterprise desires to secure the services of a man for a particular line of work, the first question asked of the applicant is, "What have you done? What is your past record?" Upon his former success depends greatly whether or not his application is to be favorably considered. The same care should be taken in selecting institute lecturers. Through their teachings and from their practical experience they are expected to impart to their hearers knowledge that is reliable and valuable, and there should be no doubt on the part of the farmer as to the reliable character of the things that he is asked to incorporate into his daily life.

Some of the requisites which a successful lecturer should possess are: (1) He should refrain from the use of vulgar expressions and unnecesary stories; (2) he should confine his instruction to the subject that has been assigned him; and (3), if he expects to have the confidence and respect of those he endeavors to influence, he must be a man of high moral character and possess the esteem and confidence of his neighbors and others with whom he mingles in his daily life.

In his list of subjects he should include only those with which he is entirely familiar, in which he has had practical experience, so that the knowledge he

imparts has been gained from such experience. If he attempts to do otherwise he will not be long in convincing his audience that he has missed his calling, and many of his listeners will lose confidence in his associates on the institute force as well. To be convincing and most effective he must be perfectly familiar with the agricultural conditions and needs of those he is trying to instruct. He should be able to give specific instructions rather than general advice. He should be well versed on all of his subjects and be able to impart freely to those seeking information the knowledge he has acquired from years of practical experience and study.

The success of the institutes in the past has been due to the effective work of the lecturers, and we should express our appreciation of the good work they are doing.

Respectfully submitted.

T. L. Calvert,
E. R. Lloyd,
T. A. Hoverstad,
Committee.

G. C. Creelman, Guelph, Ontario, chairman of the committee, presented the following report:

REPORT OF COMMITTEE ON COOPERATION WITH OTHER EDUCATIONAL AGENCIES.

The longer we observe institute work in the several States and Provinces and the more closely we follow the papers, addresses, and discussions of this American Association of Farmers' Institute Workers, the broader become our views of the scope of the work and the harder the task to define just what constitutes a farmers' institute.

One man defines a successful institute as a gathering of 1,000 or more persons, brought together from the town or country, and addressed from a platform by a professor or other qualified person, or persons, on some phase of agricultural practice or research. Asked as to the means used of getting so many people together, he affirms that it may be done with a brass band, a street parade, or a free show of some kind at the gathering before and after the agricultural address.

One director says a successful institute consists in the meeting together of a few matured farmers to discuss problems of farm work. They may or may not have a college or station man to lead in the discussion. The main point, however, is that they come together because they feel the need of help.

Another declares that he has seen the greatest possible good come from a meeting of twelve farmers in a field, where the institute director had arranged for a practical demonstration in field surveying and tile drainage.

Some declare a one-day meeting, with one speaker, to be the best arrangement, and others are equally sure that nothing can be accomplished in a community in less than two days, of four or five sessions, with four or five first-class specialists discussing as many phases of the work.

One man declares that principles only should be taught, while others are equally sure that the time of any institute is wasted unless each speaker has some scheme to present that will put additional dollars and cents into the pockets of those who practice what he preaches.

Some prefer a mixed gathering, and some not. Some directors hold all their meetings in the summer, and others hold none at that season of the year. Some feel that a permanent organization in each county is absolutely necessary to success in institute work, while the great majority have no such organization, and yet their meetings are well attended and increased appropriations for the work are forthcoming from time to time.

An institute, therefore, may be, and is, organized or spasmodic; small or immense; short or prolonged; general or specialized; entertaining or instructive; it may be teaching, or preaching, or screeching, or all three in one.

Each State or section has its own agricultural problems and must work them out in its own way, with the material at hand. Ontario, with 200,000 Canadian farmers, practically all of direct English, Irish, and Scotch descent; the Northwestern States, with their foreigners, mostly German, Scandinavian, and Danish; and the East, with its older civilization, have each a different

set of problems, and these must be solved as seems best to those who control institute work in each locality.

Those of you who have attended the meetings of this association for years will distinctly remember that in the earlier days the greater part of the two or three days' sessions was occupied by directors in giving an outline of the very best way to manage an institute system. It was, of course, an exact statement, to the minutest detail, of how he did things himself, and a glance at the earlier reports will show that I was as great a sinner as any in the list. Since then we have interchanged workers, have met annually under the auspices of this association, and compared notes and received valuable suggestions.

After all, however, is there much that can be said in a specific way at a general convention that will apply directly to the needs of any particular section? If so, or if not, your committee have now arrived, in their argument, at the heart of their subject, namely, "Cooperation with other educational agencies."

We believe:

(1) That each State or Province should have either at the agricultural college or under the department or board of agriculture a distinct department for farmers' institute work, with a director in charge.

(2) That there should be a special appropriation for the work independent of any appropriation made for any other kind of educational or agricultural work, except in those States where farmers' institutes are a part of a college department of extension work.

(3) That the primary object of farmers' institutes should be to reach, by public speaking and by demonstration, such members of the farming community as are not in a position to attend longer or shorter courses at an agricultural college.

(4) That having reached and interested such persons, their names should then be handed to the authorities of the colleges and experiment stations, that they may receive further instruction by personal correspondence and through the medium of bulletins and reports.

(5) That in order to reach this particular constituency, all educational agencies that are active and enthusiastic should be cooperated with to the fullest extent, with a view to helping the man on the land, not only to a better understanding of his work, but to a higher appreciation of his calling or profession.

In conclusion, your committee realize that they have dealt only with the general aspects of the subject. There has not, however, been any disposition to shirk any of the work or responsibility, or to avoid criticism.

On the other hand, if we understand the object of farmers' institute work, we believe that each State will see the necessity of cooperating as closely as possible with all agencies that are there at work in the interests of farmers.

All of which is respectfully submitted.

G. C. Creelman,
K. L. Butterfield,
Geo. McKerrow,
Committee.

There was an extended discussion on this report, participated in by A. L. Martin, Pennsylvania; George McKerrow, Wisconsin; A. Stabler, Maryland; W. J. Kerr, Oregon; W. L. Amoss, Maryland; and J. H. Miller, Kansas. The fact was brought out that there was general cooperation between the colleges of agriculture, the experiment stations, the State boards of agriculture, and the leading railroads of the country in carrying on the institute work. Reference was made especially to assistance rendered by the Wisconsin State Sanitary Board, the railroad companies of Oregon, the Grange organization, and by commercial clubs in Kansas.

A. E. Chamberlain, of South Dakota, presented the following report:

REPORT OF COMMITTEE ON BOYS AND GIRLS' INSTITUTES.

Your committee on boys and girls' institutes respectfully reports that from the information it has been able to gather this branch of the institute work is in a particularly anomalous stage of development. The one great demand

of the time along educational lines is for the wider, more general dissemination of information pertaining to agriculture. Whether it shall come through the medium of the public school, through the agricultural high school, the farmers' institute, the agricultural college, or the agricultural press and library are questions of method upon which our most able educators differ.

Your committee feels that each of these mediums has its part to perform in the work, but that probably no one or two of these agencies can meet the demands of themselves. Each has its part to perform.

Before there can be any education there must be a desire for it. The greatest trouble with our boys and girls to-day, so far as the subject assigned your committe is concerned, is that so many of them have had it drilled into them ever since they were in the cradle that farming and the making of farm homes was just drudgery, borne by the drudges simply because they were not well enough educated or not smart enough to do anything else. One of the most common expressions in the farm home is the desire to acquire a competency which will justify the parents, at least, in leaving the farm and moving to town. The very expression of this desire on the part of the parent impresses the boy and the girl from childhood with the opinion which, in time, becomes in him or her a conviction that farm life and agricultural work are things to be endured rather than enjoyed. In the opinion of your committee the first thing to be done in the interest of the boy and girl is to nullify and as far as possible work a change in this general sentiment found among the farmers. We believe the first work of the institute in behalf of the boy and girl is to be done with the parents, and that in every institute meeting at least thirty minutes should be given to a thorough discussion of the importance of the boy and girl remaining upon the farm, and a fair, frank statement of the reasons why there are so many of them so loath to do so. Probably not more than one farmer in ten has, during the past twenty years, been making, or trying to make, on his farm what even to him would be an ideal home. He has only been using it as a stopping place until he is able to get away from it. The one great lack in the people of this continent is in ideals. Without the ideal advancement is almost unknown. If the parent has not an ideal in some particular line, it is unreasonable to expect it in the boy, while under the entire control of the parent. If the farmers' institute did nothing else than develop in the minds of the parents of the boys and girls an ideal which they wished to reach in some particular line, let it be an ideal home on the farm, an ideal pair of horses, steer, hog, ear of corn, type of wheat or oats, whatever the ideal may be, if we could but get them to have one, the fact that they had it would be felt by the entire family, and the simple fact of their having it would exert an influence over the entire family which would have a strong tendency to form in the mind of the boy, and also of the girl, a desire to know how to reach that ideal. We think this desire for the information must be created in the home, and for that reason we believe that in every institute the importance of the ideal, particularly in so far as it relates to the boy and the girl, should be thoroughly impressed upon the parent. We believe this is the first step to be taken in boys and girls' work.

We think the next step is also with the parent, and is along the line of showing them the importance of having something on their farm that is better than any one else has—something that will attract the attention of the public. Each member of your committee knows of a number of instances where boys are married to the farm proposition, have no desire for anything else than the pursuit of agriculture along advanced lines, and are proud of the fact that they are farm boys; but not one of us can recall an instance of a boy now in that frame of mind where the farm on which he lives is not producing something better than the average in the community. As proof of this fact, we ask you to take your standard live-stock papers, or other papers in which breeders of corn or other grains advertise, run over the list of old advertisers of long standing in the business, and notice uniformly the names are either John Smith & Sons, or the son of some pioneer in that particular line of work. The members of your committee scarcely recall an instance where advanced work along any line has been done by the parents, when the boys were in their formative period, that these same boys, or some of them, have not taken the work up and carried it along. There is no prouder moment in a farm boy's life than the moment when the banker brings his friend who is visiting him out to that farm to show him what can be done in that community, or when the judge at the county fair ties a ribbon on something produced on that farm, and in the production of which the boy has had some part. The next most important thing

to do for the boy or the girl is to try to get each farmer to produce something better than his neighbor is producing and to impress upon him the importance of his doing so for the sake of the boy.

In the matter of boys and girls' institutes, we would say that we find from inquiry and observation a marked increase in the number of boys and girls attending the regular meetings, and again here our observation is that it is the boys from the farms where something out of the common is being done along agricultural lines who attend these meetings. It is the good farmer who comes into the institute meeting with two or three good healthy boys behind him. During the last year's institute work in South Dakota, the experiment of carrying a thoroughly educated college man and college woman with the principal crops and having them spend the forenoon in the high school, and invite the boys and girls to the main hall in the afternoon at a certain hour when addresses were made in which they should be particularly interested, was thoroughly tried. In some places they came in the afternoon; in very many places but very few of them came, even though dismissed for that purpose. This was not because the speakers were not competent, for they were thoroughly experienced, thoroughly educated along their respective lines. We attribute it wholly to the lack of a desire for the information on the part of the young people, and we think this lack of desire was largely because of the ambition of the students to follow other pursuits than agriculture. In the instances where they did attend the meeting in considerable numbers, they were generally marched to the hall in file by the superintendent or principal of the school. This experience impressed at least one member of your committee with the conviction that before any considerable amount of work along this line can be done successfully the desire for the work must be created. The coming winter it is the plan in South Dakota during thirty days of the winter to devote one afternoon of each two-day meeting to the boys and girls exclusively, and during that time to deal as far as possible with demonstration work. The young people's meeting will be held in a separate building and a different speaker assigned for each one-half hour period, and it will be his duty, as far as possible, to demonstrate some of the principles of agriculture and explain their importance. This work will probably be along the lines of capillarity, food values, which will be demonstrated by quantitative charts, corn production, a handy kitchen, and probably one demonstration in the preparation of cereals. We are further trying the experiment of furnishing the teachers in the rural schools here with some leaflets giving instructions for certain exercises in the schools. Among these will be the separation, or rather selection, of different varieties of field seeds, with a view to bringing out the foulness of the seed ordinarily sown, as well as the inferiority of a considerable proportion of it; testing the germinating power of different varieties of seeds from the different farms; the testing of seed corn by the individual ear; the judging of potatoes and corn; and a few other elementary exercises along these lines. Here again we meet with what appears now an almost insurmountable obstacle. Nine out of ten of our public school teachers are young ladies whose least aspiration is to ever come in contact with anything agricultural. They have had absolutely no training along these lines, and we anticipate before we begin the work that many of them will ignore it entirely. We will have to depend very largely upon the county superintendents so see that the work is done at all in many of the schools. In Illinois, Iowa, and Nebraska corn-judging contests have been used to interest as well as educate the boys, and some excellent work has been done along these lines. Minnesota is probably entering upon a broader sphere of the boy and girl contest work than any other section of America that we know of, and we are disposed to think that, so far as the contest work is concerned, Minnesota probably leads. They extend their contest to very many different lines of work both for boys and girls and graduate their contest about as follows: The first contest is local and among the students of the school, and the winners there are allowed to enter the county contest, and the winners in that contest enter the State contest. We are quite favorably impressed with the plan as a whole. In Iowa the college extension work has done wonders in interesting the boys, particularly in corn and stock judging. The phenomenal growth in the attendance at their agricultural college is largely due to this extension work. It is to a certain extent demonstrative in its character, and we believe, so far as it goes, is achieving excellent results. In Nebraska the boys and girls' contests have been carried on to a considerable extent with good results, and great success has been had with the boys and

girls' institutes. At 14 such meetings last year they report a total enrollment of over 3,000 boys and girls. In their plan of organizing these institutes in the different counties the State department of public instruction has charge of organizations and the university department of farmers' institutes has active charge of the publications put out and the contests in connection with the meetings. The authorities in Nebraska put a great deal of stress upon the importance of this cooperation between these different educational departments. The contest plan is largely used in that State and extends to competition in field crops, different varieties of baking, needlework, and the like.

We are disposed to think that demonstration work is the best character of work for the young people, and that the nearer we get the demonstration work to the home field in which the boy works and the home in which the girl lives the more effective it will be. Your committee is of the opinion that this demonstration work will ultimately come to the field and the farm homes, and that the boys and girls' institutes will not have achieved their greatest success until they are held in the fields, farm yards, and the farm homes. We believe that if in each county three days at least could be set apart to a boys and girls' institute, to be held during the warm months, for the boys probably in a tent in the country, and for the girls under some arrangement for their care and housing, probably with a tent for a class room, the programme to consist partially, at least, of visits with the boys to different fields, farm lots, herds, orchards, groves, and farm buildings, followed by lectures on return to the tent upon what had been seen on the trip, and with visits with the girls to different homes where better conditions prevailed, and probably some demonstrative work in the tent or class room, we would be at least approaching the ideal in institute work. How many farm boys know what percentage of the crop they have worked all summer to produce has been lost by smut? What percentage of the corn crop that should be there is missing either because of poor seed or poor preparation of the seed bed? What percentage of their potato vines are only producing one marketable potato, while a few of them under the same conditions are producing three or four? How many unnecessary miles do they walk during the year because of faulty arrangement of the farm buildings and yards? When we can show the farm boy some of these things—and we say show him, because you can't tell him and impress it upon him as you can if he sees it—we will begin to see results from our efforts.

A number of farm encampments or farm schools have been held in Illinois during the last two years. Also agricultural instruction has been given in connection with several Chautauqua assemblies. These meetings have made a deep impression upon their respective communities. Several teachers are secured from the college of agriculture, besides other excellent institute talent. Classes are taught in corn judging and live-stock judging. There are field excursions to secure seed specimens of the different families of plants, demonstrations in adjusting farm machinery, bridge work, and making concrete fence posts, tanks, etc., practice in surveying levels for tile drain, in addition to study of soil problems and production of the principal grain crops, character-building talks, and a series of good lantern slides almost every evening. At one of these encampments this year a tented school of household science was introduced and proved one of the very best features of the encampment. Good samples of college class work were given to large audiences of most appreciative women and girls, who at once organized a local domestic science club.

We think the only mission the public school has really at the present time is probably to demonstrate some of the principles and elementary work along the lines we have indicated. The school garden may be added, but in a vast majority of the experiments it will droop and die during the vacation months. The agricultural high school is an institution that is coming as certainly as fate, but the very term itself implies some education procured some place else, and it is this education the farmers' institute must supply. The term "agricultural college" implies the same, and at least the desire for the instruction given at the college, and some of the elements of agriculture must be gained by the student some place, before the college can interest him. We think it is very largely because of a lack of elementary instruction before the boy reaches the agricultural college that such a large percentage of them, when they do reach there, choose the engineering or some other course than agriculture. The agricultural press should be liberally patronized, and patronage of the better class

of it should be strongly encouraged in all institute meetings. The reading of this class of literature at least creates interest in the mind of the reader, but the one objection we see to it is the failure of so large a proportion of the better agricultural papers to adapt their articles to the conditions of their readers and only use articles which are adapted to the conditions covered by their circulation. The agricultural library will always have its place in agricultural education, but few will be the readers, until they have been interested in the subject from some other source, and we believe the most productive source is demonstration in the different fields and on the different farms in the community to be educated.

Respectfully submitted.

F. H. Rankin,
Val Keyser,
A. E. Chamberlain,
Committee.

Discussion.

Val Keyser, of Nebraska. In connection with the department of public instruction in Nebraska, work has been conducted along lines intended to interest the boys and girls of our State. We reached last year 4,125. In Red Willow county we were never able to interest in the farmers' institute more than 15 or 20 men. Last year we turned it over to the boys and girls. The commercial club put up $100 for prizes and the county commissioners put up another $100. We got out 300 boys and girls, who brought exhibits. This year we had 600 boys and girls, and 500 of them had exhibits. We now have about 40 active organizations, 33 of them holding contests this year, and will probably have 250 or 300 next year.

G. I. Christie, of Indiana. We have in our State something more than 35 corn clubs with a membership of 5,000 boys, carrying on corn tests in connection with the farmers' institutes. We have found that where we have several hundred boys growing corn from May until November we have everybody talking corn, and when we come to holding institutes the trouble is that we have difficulty in keeping the institutes from running all to boys and girls. We are offering prizes that are intended to be educational. For instance, we say to the boy in each township who is successful in the competition that his expenses will be paid for one week down at the farmers' short course at Purdue. Last year we had 67 boys. This year at the present time we have a record of about 80 boys who will come. In one county a boy grew an acre of corn in the middle of his father's field. We found that the stand of the farmer's corn was 65 stalks when there should have been 100, and in the same space the boy had 111 stalks. When the corn was harvested the father had 37 bushels and the boy had 87.

John R. Boardman, of New York. I appreciate the report of the committee on boys and girls' institutes, and if the Young Men's Christian Association can do anything to cooperate with you we will be glad to help you in every way possible. Let me suggest that you make a great deal of the social feature. The boy needs to have more attention given to his physical life; to the needs of his own body and the functions of his body.

J. P. Connors, of Oklahoma. I think Oklahoma has the best system of boys' farmers' institutes in America. We have provided for agricultural education in the public schools, and every public school in the State will be, according to my mind, a boys and girls' institute, and every citizen of the State will help to bear the burden whether he wants to or not.

The following report was presented by the chairman, L. R. Taft, of Michigan:

REPORT OF COMMITTEE ON MOVABLE SCHOOLS OF AGRICULTURE.

The foremost thought in the minds of the prime movers in farmers' institutes was to bring the farmers into closer touch and sympathy with the agricultural college and at the same time give the teaching force of the agricultural colleges, which in most instances carried on the work during the first few years, an opportunity to meet the farmers and become acquainted with them and their needs; and, while perfecting their own knowledge of the climatic and other conditions that pertained, offering such suggestions regarding the handling of the crops, animals, and other farm matters as they could furnish. As the work developed the popularity of the institutes increased, and it became necessary to go outside the colleges for institute lecturers.

These meetings led to the demand for more definite and extended instruction, and to supply it in many of the States "short courses" were arranged at several of the agricultural colleges to which the farmers and farmers' sons and daughters could go for periods of from two to eight weeks. In most instances they were well attended and sometimes severely taxed the capacity of the institution, but relatively, compared with the whole number of young men on the farms of the various States, the number in attendance at these short courses has been insignificantly small. In many cases it was not because the value and importance of the instruction to be secured was not recognized, but from the fact that many of the men were living upon farms and for various reasons were unable to leave home. Others did not feel that they could afford the time and money such a course would cost.

For these and other reasons it has been thought advisable by many States, where the farmers would not or could not go to the agricultural college for the long or short course, to take the college to the farmers and so far as possible give a course of instruction comparable with that afforded by the short courses offered at the agricultural college.

This form of extension work, to which the name of "movable schools" is given, has already been taken up in quite a number of States by the agricultural colleges and in others, particularly those in which the farmers' institutes have been under the direction of the distinct boards or departments of agriculture, similar schools have been undertaken by other organizations.

Just what coordination of this work should be made will depend to a large extent upon conditions, but as the colleges have been established for purposes of "teaching" and as they are supposedly supplied with "teachers" and, to an extent determined by the special needs of the State, supplied with materials for illustration and apparatus for laboratory work, the logical and certainly the economical administration of such movable schools would seem to require that they be carried on by the agricultural colleges as a branch of their extension work, or in case the work in any of the States is now in the hands of the boards of agriculture, or other similar organizations, there should be the closest affiliation with the agricultural college to the end that the instruction in the movable schools be, to as large an extent as possible, carried on by the faculty of the college.

To determine the opinions of the directors of farmers' institutes and others in the different States, circular letters were sent out with requests for information regarding seven distinct phases of the question. The following points were covered:

1. *Have such movable schools been held in your State; and if so, with what success?* Replies were received from 27 States, of which 10 reported the holding of what might be termed "movable schools," although in a few cases they differed but little from "long institutes."

2. *Is the holding of such movable schools being considered, and what are the arguments in their favor?* To this question only 7 of the States reported as being opposed to the idea. Most of the others looked quite favorably on the movement, and several gave "the lack of funds" as the only reason for not taking up the work. Among the reasons given for favoring such movable schools were: (*a*) There is greater interest, owing to the fact that the time available permits the thorough discussion of the subjects taken up; (*b*) they reach people who can not go to the college; (*c*) they bring the college and

farmers in direct contact; (*d*) definite instruction covering a subject pretty thoroughly is demanded, especially by the fruit growers; (*e*) they reach thousands who otherwise would be unable to secure even the meager instruction they afford; and (*f*) direct instruction and opportunity for demonstration work can be given.

3. *What in your opinion are the possibilities for such schools and what line of instruction would be most acceptable in your State?* (*a*) The fact that the calls are increasing indicate their success; (*b*) possibilities are great; (*c*) most valuable; (*d*) such schools would be popular and would add greatly to the production of crops; and (*e*) could do much good in the way of stimulus to better farming and farm life.

On the other hand, it was claimed by one that the movable schools were too cumbersome, too costly, and required too much machinery, while in some of the smaller States it was thought better to have all teaching of agriculture done at the agricultural college.

The following are among the lines of work suggested: Dairying, horticulture, general agriculture, stock judging, stock feeding, domestic science, fertilizers, corn judging, poultry, veterinary science, seed selection, and tillage, or, as expressed by one institute director, "what our patrons need or demand."

4. *In case you think favorably of them, under whose direction should they be held?* Six favored holding movable schools under the direction of the colleges of agriculture, 9 under the State directors of institutes, and 1 would have it under the combined direction of the State college and the State board of agriculture.

5. *What should be the requirements in the way of fees, what portion of the expense should be borne locally, and how should the money be raised?* The majority favored the payment of a small fee to insure the interest of those in attendance, $1 being mentioned in most cases. From these fees and from contributions all local expenses, such as hall rent, the per diem of local assistants, and perhaps the hotel and traveling expenses of the lecturers, should be paid.

6. *How long should they be in session?* In most cases one week was favored, at least at the start, but it was thought that if held a second time at a place it might be extended to two weeks or even more in some instances.

7. *Should there be any limitation in the age of the students?* While 15 or 16 years was suggested in some of the replies as the minimum age, others were of the opinion that the main thing required was that the pupils should be of sufficient age to be interested and to be able to profit by the instruction given.

The character of the instruction given should naturally vary with the subject and the preparation of the students. A logical plan appears to be to devote about one-half of the day session to laboratory work and to visiting and inspecting herds, creameries, poultry plants, orchards, and other places that may be the subject of instruction. For the evenings, lectures of a more or less popular nature may be given.

From letters received from other farmers' institute men the following report has been gleaned regarding the work in Canada.

What may be classed under movable schools of agriculture have been held in Nova Scotia, Quebec, Ontario, Saskatchewan, and Alberta. The work taken up was: In Nova Scotia, traveling dairies; in Quebec, the same; in Ontario, traveling dairies, stock judging, fruit growing; in Saskatchewan, seed trains; and in Alberta, seed trains, and stock judging.

In each of these Provinces the work undertaken has proven very successful. The traveling dairies make from one to three days' stay at each place, the stock-judging schools from two days to two weeks, fruit growing two to four days, seed trains from one session of two hours' duration to two days. In all these cases no fees were charged and in every instance the whole expense of the work was borne by the provincial government under which the work was undertaken.

From the reports received, a brief summary of which is appended, it is evident that wherever movable schools have been held they have met with favor, and it seems that the time is now ripe for the very general adoption of this form of extension teaching.

Under the form of organization now available for carrying on the local work of the farmers' institutes, it would appear an easy matter to complete the arrangements for the holding of movable schools of agriculture, and the carrying

on of both under the same management would seem to be the simplest and best arrangement.

Summary.—(1) The movable school of agriculture takes the agricultural college to the farmer and is to be commended. While they will not take the place of the institutes, they may be used as substitutes where institutes have been held a long time.

(2) As a form of extension teaching it belongs logically to the agricultural college and should go hand in hand and under the same management with the farmers' institutes, and the men employed in the college and experiment stations should give the instruction in these schools.

(3) If the institutes are carried on by the boards or departments of agriculture, and the latter take up the work of holding movable schools, there should be the heartiest cooperation with the agricultural college.

(4) A special effort should be made to interest young men and women who are not attending college. The holding of such schools can hardly fail to attract their attention, and thus hold many upon the farm who might tend toward the town and factory.

L. R. Taft,
J. Bracken,
Alva Agee,
Committee.

SUPPLEMENTAL REPORT BY THE COMMITTEE ON MOVABLE SCHOOLS OF AGRICULTURE SHOWING THE PROGRESS OF THIS WORK IN THE SEVERAL STATES.

Colorado.—The farmers' short course or local school is regarded by Prof. H. M. Cottrell as the most important forward movement they have made. While the ordinary farmers' institute is so short that it merely stimulates interest and puts the farmers in touch with the agricultural college and experiment station, the short course permits the giving of extended information on a few subjects of special interest to the community where it is held. During the coming winter 24 farmers' short courses and 10 domestic science short courses will be held, and as soon as the funds permit the number will be increased to 75 each winter.

The first time a short course is held in a community the instruction is confined chiefly to practical work, things that the farmer can apply immediately. Second-year lectures are given upon the principles involved in the farm practices recommended. The third year considerable attention is given to the theory of agriculture.

The farmers' short courses last six days and the domestic science courses five days. Anyone who can understand the lectures is allowed to attend. To secure a short course there must be a guarantee of 100 farmers, each paying a fee of $2, and for a domestic science short course, the attendance of 100 women with a fee of $1. The fees cover about one-half the expense.

Instruction is given along all lines of farming adapted to Colorado and in the subjects of vital interest to housekeepers.

Idaho.—Prof. E. E. Elliott reports that movable schools have been held in that State with good success. The subjects treated have been dairying, fruit growing, and wheat production. They are especially valuable as they bring the college to the farmers directly. A period of one week is favored and there should be no fees.

Kansas.—The report from Superintendent Miller says that they have held three-day judging classes, the subjects they considered being stock, corn, dairy and creamery apparatus, with the handling of the latter. The holding of a few three-day classes for girls in cooking has been considered. They are held under the local direction of the county institute with a fee of $1. The county committee provides the hall and pays the board of the speakers. While three-day sessions have been tried thus far, later on it will be extended to six days. Last year no one was admitted under 18 years and for the cooking class the age limit will be 16 to 20 years.

Maryland.—Movable schools have been held in Maryland under the direction of Superintendent Amoss of the farmers' institutes. They have met with approval, and many calls are received for this class of work. The possibilities are thought to be great if the work is properly done, and the lines taken up should

be determined by the means or demands of the patrons. While these schools are valuable, they will not and should not take the place of the institutes as generally conducted.

Iowa.—The extension work in Iowa is carried on by a department of agricultural extension connected with the Iowa State College in charge of Prof. P. G. Holden. Up to the present time about twenty short courses have been held, and in every instance with unqualified success. The greatest arguments in favor of them is that they take education to the people in their own homes. The attendance at the local short courses has shown an average of 320, while as a rule not more than 10 go to the college from the respective districts.

They also have an excellent local effect, as they develop an interest in the entire community, including business and professional men. Although they have been confined to one week each there is a call for longer sessions, but it is thought that it is better to run them one week in order that they may be furnished to more communities for a given appropriation.

There is no limitation as to age, which ranges from 10 to 75 years. The fees are from $2.50 to $3 for the week's work for men and from $1.50 to $2 for the week's work for women. The local expenses which are thus raised cover everything except for the per diem of the State speakers, and usually run from $1,200 to $2,000, not including premiums ranging from $1 to $2,000, which are furnished by the farmers and merchants. No short course is held until 200 people have signed a guarantee pledge for an average of $10 apiece.

The expense of maintaining the department is defrayed by State appropriation of $27,000 annually, but, as stated above, the local expenses are defrayed by the membership fees of those in attendance.

Delaware.—The report from Supt. Wesley Webb shows that although no meetings have been held they are considering the matter, and it is believed that definite instructions covering a subject pretty thoroughly is demanded, especially by our fruit growers. It is believed that such schools would be popular and they would add materially in the production of crops. General farm management and fruit growing should receive attention. Such schools should be under the combined direction of the State college and State board of agriculture.

Georgia.—President Andrew M. Soule reports that although no movable schools of agriculture have been organized, they expect to take up the work in connection with the district agricultural schools. It is believed that in this way the student body of those institutions can be impressed and that the interest of the parents in educational work will be increased. Instruction could be given in cotton and corn production, live-stock husbandry, horticulture, and general agronomy, including a study of soils. They should be held under the direction of the State college of agriculture, and would constitute a legitimate part of the extension work. The fees should not be large at first, but might be increased later on. To commence with, the schools should not be in session for more than one week, but the time might be extended to ten days or two weeks later on.

Illinois.—Professor Hall reports that no such schools have been held, and they are not being considered in Illinois.

Mrs. I. S. Raymond, of Sidney, replied that although no regular movable schools have been held, what have been called "encampments" have been held with considerable success. The schools have lasted two weeks, and the expenses have been borne by some individual or by the community in which they were held. They can be successful only when the staff of the agricultural college can be called on for liberal help, although successful farmers are always among the best instructors.

Indiana.—Professor Latta states that although no such schools have been held it has been due in part to lack of funds, as it is thought they could accomplish much good. Dairy and poultry instruction would prove very acceptable to most places. He believes that there should be a certain minimum number desiring the work, that the age should not be less than 18 or 20, and that the pupil should have had some experience in the line of work covered by the course. There should be a fee to cover at least a part of the expenses, in order to insure interested students. The period should be at least a week.

Maine.—Prof. W. D. Hurd believes the schools would be most valuable and that they can be best handled by the State college of agriculture. One or two weeks would probably be best in most places.

Massachusetts.—President K. L. Butterfield thinks that the holding of such schools is being considered, in order to reach people who can not go to the college. They should continue for from perhaps one to two and four weeks, and the attendance should be limited to mature people. The local people should pay the general expenses and a tuition fee should be charged.

Michigan.—Although no meetings that can properly be termed movable schools have been held in Michigan for a number of years, the work was taken up some years ago and a number of what were called "long institutes" were held. These related to specific subjects, particular attention being paid to fruit growing and dairying. Although there was no regular classification or fees, the meetings were conducted much the same as regular college classes. There were five class periods of one hour each during the day with one or two popular addresses, generally relating to the home or some educational topic, each evening. There were three lecturers for the day sessions, two of whom were on the programme in the forenoon and again in the afternoon, while the third was scheduled only for the afternoon. While each of the lectures was, so far as possible, complete in itself, each speaker for the most part discussed at each session one or more phases of some general subject, so that to fully understand the subject it was quite desirable that everyone should be present at all the sessions. There was nothing in the way of laboratory work, but so far as possible charts and specimens were at hand to illustrate the lectures.

The attendance and interest at the fruit institutes was quite satisfactory, but the dairy institutes were not as successful. Later on classes were organized in a number of adjacent towns to which a single lecturer was sent, holding meetings for one night each in succession. One week later the same classes were again met, and after a short quiz another lecture was given. These meetings were continued for four or five weeks at each place. Although considerable interest was shown, the attendance was seldom more than 15 to 20, and it was thought that better returns could be received for the money by holding an increased number of one-day institutes.

Missouri.—Secretary Geo. B. Ellis has been conducting short courses of agriculture in several parts of the State with considerable success, with six days' work in a place. There are two lecturers who remain three days, followed by two other men, thus taking up four different subjects. The instructors give lectures in the forenoon and demonstration work in the afternoon. A guaranteed attendance of 75 is required, but the trouble has been to take care of the large number who have attended. During the present year from twelve to fifteen of these schools have been held.

Minnesota.—Prof. S. B. Green believes that there are great possibilities for such schools. At the present time they have a man at work talking and giving demonstrations in dairying.

Mississippi.—Prof. E. R. Lloyd is planning to hold short winter courses in agriculture, continuing for one week in a place. In the regular institute work he endeavors to introduce as much demonstration as possible following the lectures.

Pennsylvania.—Director Martin held four movable schools last season and great interest was taken by the classes. Such schools give more direct instruction and greater opportunity for demonstration work. There are two sessions of three hours each per day. Dairy farms, orchards, and poultry establishments are visited and sessions held there. Young men and women are encouraged to join the classes, but there is no age limit. The classes must agree in advance to attend all of the sessions.

Nebraska.—In February, 1908, a farmers' institute school or short course was held in Nebraska by the department of farmers' institutes connected with the college of Nebraska. The total attendance at the school was 120, with about an equal number of men and women. No especial effort was made to advertise this school, as the instructors were not in position to handle large classes. From the standpoint of interest manifested among the members in attendance the school was certainly a grand success. The school was in charge of the local institute officers, who fixed the membership fee for men at $1, while the women were admitted free. Instruction was given in feeds and feeding, soils and domestic science, each forenoon of the week, with demonstrations in stock judging, laboratory work with soils, and cooking demonstrations for the afternoon sessions.

The university department of farmers' institutes has arranged for two such schools this winter. A guarantee of $250, preferably $10 each by 25 farmers, is required. One place already reports 35 signers to the pledge, and urgent requests have been received for these schools from seven different communities.

A high grade of instruction will be given and a special effort made to demonstrate the advantage and value of these schools, and it is expected that if money becomes available for schools of this kind several communities where successful institutes have been held in the past will substitute the school for the institute. The school certainly offers a great opportunity for more thorough instruction in agricultural subjects, and each year the farmers are asking for new subjects or more technical discussion before the institutes.

The institute school will not take the place of the farmers' institutes in many places where institutes are now held in Nebraska, but may be used as a substitute for the farmers' institute in towns where institutes have been held a number of times. At each of the schools to be held this winter in Nebraska we have set aside one day for farmers' institute day.

Especially where the State pays the salaries of the instructors it is thought that the school should not be extended over a period of more than one week. A special effort will be made to interest young men and women not attending school or college in the counties in which these schools are held.

Montana.—Secretary Linfield states that although no movable schools have been held they are favored, because they give opportunity for more thorough presentations of the subjects. They can be handled more satisfactorily by this method and the special industry of a given district can be better served. Such schools are very properly a part of the extension work of the agricultural college.

North Dakota.—There is a field for such schools and much good can be done in the way of stimulus for better farming. A short course in connection with Chautauqua has been thought of, and a large number of people would be reached by sending the schools to the people.

Oregon.—Director Withycombe believes there is a good field for this work and that the modern practices in dairying, horticulture, general agriculture, and domestic science should be taught.

West Virginia.—Director Garvin reports that in that State five-day institutes, termed schools, have been held. The time occupied permits of the subjects being discussed more in detail. A charge of $1 is made to each regular attendant.

Wisconsin.—The report of Superintendent McKerrow states that they have been held in connection with the county agricultural schools, and the holding of such a school for a week or ten days each year in every county as a farmers' stock-judging short course is advised.

Wyoming.—Director Towar reports that although no such school has been held as yet they are looked upon favorably, because the college is in one corner of the State and it is not possible to get students from the remote portions of that large State to go to the college.

It will be seen from the above that a very large proportion of the States favor the holding of movable schools of agriculture. In only three or four cases was any doubt expressed of the value of such schools. In one instance it was thought that there was too much machinery and that they are too cumbersome and too costly for the good done. Two reports from some of the smaller States expressed the opinion that under their conditions, with the abundant railroad and trolley facilities, the students can readily attend the regular and short courses at the college, and it is also possible to reach every section by means of the regular institutes. In two of the Western States which have rather meager agricultural possibilities there is no demand for such schools. Another Western State favors the holding of short courses in connection with high schools and academies. The opinion is also expressed that better results could be obtained by taking the students to the agricultural college, paying the railroad expenses if necessary.

L. R. Taft,
J. Bracken,
Alva Agee,
Committee.

After some discussion of the report the convention adjourned to meet at 9 a. m. the next morning.

Morning Session, November 17, 1908.

The convention was called to order at 9 a. m., the president, Tait Butler, in the chair.

The following report was presented by the chairman of the committee, A. M. Soule, of Georgia:

REPORT OF COMMITTEE ON INSTITUTE ORGANIZATION AND METHODS.

The committee on institute organization and methods finds little of general interest to report to this association. Practically all of the data of importance with reference to institute organization and methods have already been presented in former reports, and constitute a part of the knowledge of practically every successful institute director in the country. There are a few phases of the work which may be considered as somewhat new from certain view points, to which the committee briefly directs your attention.

Fruit and live stock judging institutes have been introduced in some sections with success. These really consist of two or three days' short courses, the programme being devoted almost exclusively to fruit growing or stock judging, according to the general character of the farming in the locality. Those familiar with the old method of holding institutes for one day have noticed a desire on the part of the farmers attending for more definite information than could be conveyed in a short discussion of a variety of topics which is ordinarily provided for. In a three days' institute quite a definite programme can be carried out in detail; and, as actual demonstrations can be made as well, the instruction provided is quite efficient in character and seems to be generally appreciated in those sections where meetings of this nature have been held.

Short courses of instruction in agriculture and kindred subjects similar in nature to the above can often be arranged for quite effectively in those States where Congressional district agricultural high schools have been provided for. The school is naturally a center around which there is much of general interest to the farmers of that community, and where they are well patronized the parents will often attend to better advantage than at points removed from the school. Then, there is a local interest working for the success of the institute, which is an important matter.

It has not always been found satisfactory to leave the organization of institutes to local authorities, though it seems advisable to do so when possible. In sections where an organizer is sent out from headquarters our observation leads us to think that larger and more enthusiastic meetings are obtained, and that it pays well to send out an advance agent for the purpose of securing the cooperation of the local papers and the leading citizens of a given community. This is not necessary in all sections, as there seem to be leaders in certain communities who will maintain the institute organization on an efficient basis. Taking the State as a whole, the local organizer will not always be found satisfactory.

We commend the holding of normal or round-up institutes for the training of speakers and the discussion of subjects of general interest to farmers. It is a difficult matter to obtain satisfactory lecturers without overstraining the workers in our agricultural colleges and experiment stations in many of the States, and the normal institute is doing an excellent work in widening the sphere of usefulness of the so-called practical speaker, whose value we all appreciate and whose excellent service to the institute movement, past and present, we heartily commend.

We indorse all plans in the organization of institutes which tend to interest the boys and girls. In some States contests in corn and cotton growing have been arranged for through the schools, an institute or educational rally being held at the time the products of the children's labor are placed on exhibition. The judging of the corn and cotton afford object lessons to the grown farmers and unite the interest of both the adult and the child in better methods of farming. A few hundred dollars appropriated by the State for the prizes, we believe, can be wisely and well expended and will stimulate a greater interest in education, which is, after all, the purpose of the farmers' institute.

The movement of institute or educational trains seems also to have proven quite satisfactory and commends itself to your committee as a means of reaching large numbers of people in a comparatively short time. Where all the railroads can be brought into a cooperative agreement, an entire State may be covered in a comparatively short period of time and thousands of farmers reached, say, just before the planting season. On this train may be carried exhibits of live stock, tools, implements, and selections of corn, cotton, and various other farm crops which illustrate in a most graphic manner the speeches delivered by the lecturers. The speech thus becomes a live and vitalizing force, while the exhibits illustrate graphically what the farmer may accomplish by following better methods of practice. Many simple experiments can also be made on a properly equipped train; for instance, the testing of milk and butter, the determination of soil acidity, the influence of humus on the retention of moisture, and the judging of cereals, cotton, and other farm crops.

Live speeches are needed at the institute—that is, addresses in which the speaker demonstrates the principles under discussion; for example, when the subject of corn improvement is up for consideration, a few ears of corn as a means of illustration will make the speech much more effective.

The need of a staff of institute workers grows daily more and more apparent. Where the institutes are associated with the agricultural colleges an extension bureau could easily furnish the needed institute lecturers who by reason of constant work in the State become familiar with local conditions, understand the needs of the people, and are in position to serve them most effectively. The extension of the time of holding institutes from one to three or more days means placing them on a more substantial and efficient foundation, but of course when this practice becomes general it is a question if the work does not take on more of the nature and character of extension teaching.

ANDREW M. SOULE,
GEO. A. PUTNAM,
J. D. TINSLEY,
Committee.

DISCUSSION.

A. M. SOULE, of Georgia. I have had the advantage or the misfortune of working in several different States. In the State of Georgia, in 40 of the 137 counties, we have had no trouble in organizing institutes, but we find that in from one-half to two-thirds of the counties we can not depend upon the local people for preparation for holding the institute meetings. Last year we sent out a man who visited the county school commissioner, the leading merchants in the communities where institutes were to be held, and the newspaper men. Then we sent out three notices: First, that an institute would be held; second, that certain speakers would be there; and, third, a programme directly to the newspaper men, who always printed them, and also to some of the leading farmers. The results were quite satisfactory. Our advance agent costs us about $25 per month, and I do not think that his entire expenses have cost us over $300.

W. H. SCHERFFIUS, of Kentucky. We have had trouble with this advance-agent feature. During the past year, for example, our advance agents cost us something like $3,000. Our commissioner now has a plan that he proposes for the coming year by which a man from each county will be sent to the State round-up meeting, and he will go back home as the advance agent. We think that by this method the expenses can be reduced fully one-half.

D. P. WITTER, of New York. With regard to the advance agent, our commissioner of agriculture, who has lately come into this office, wanted to get all the information he could respecting the institute work, so he inaugurated the plan of holding a county conference of men who were interested in the farmers' institute work in the county, including the prominent members of the Grange, the presidents and secretaries of the agricultural societies, and others who were interested in the development of agriculture in the county. A representative

from the department attended each county conference. I covered in this way about one-third of the State, and my expenses were $126. I suppose that our State of New York, with 61 counties, was covered with probably less than $500 expenses. These conferences name the places in the county where they think the institute would do the most good, and indicate the subjects that should be discussed. The meetings last year averaged from 5 to 18 representative men, and the entire subject of the farmers' institute work of the county was considered very fully, and plans for carrying on the work were formulated. A record was kept of the recommendations of these conferences, which was forwarded to the commissioner of agriculture for his guidance in arranging for holding institutes during the coming year.

A. L. Martin, of Pennsylvania. In Pennsylvania the member of the State board of agriculture in each county is by virtue of his office the local manager, and, in a sense, the advance agent of the farmers' institute. The county institute committee is composed of this member of the State board of agriculture, a representative from the Pomona Grange, and one from each of the other county agricultural organizations. They meet annually at the rooms of the county commissioner and designate the points at which they think institutes ought to be held during the coming year, and make out the programme of exercises. A report of this meeting is sent to the State director of farmers' institutes, who makes use of it in arranging for institute meetings. The county chairman of institutes receives $12.50 per day for each day of institute held within his county. This fund is to be used for the printing of programmes, distributing of advertising matter, and other local expenses. The State furnishes from two to three speakers, whose expenses are met from the State fund. There are 67 of these county chairmen in the State.

L. R. Taft, of Michigan. In Michigan we think we have combined the good points of the other States. On every committee in a county organization we have a vice-president in each township as local manager. In the spring, at the close of the institute year, we hold a round-up institute and there arrange for a conference of the county secretaries with the institute lecturers and make, so far as possible, plans for the coming year. In August we send out blanks to these secretaries and vice-presidents, calling a meeting for that county, at which meeting the institutes are located and topics and speakers are selected. The county secretary, during the subsequent months previous to the institute meetings, visits the points where they are to be held, calls on the editors, and does what he can to arrange for the meeting, but leaves the local part in charge of the local manager. We formerly had an organizer sent out from the college, but we found that it cost us nearly half as much as the meetings themselves.

G. A. Gigault, of Quebec, Canada. In the Province of Quebec we have as advance agents farmers' clubs. These farmers' clubs are legal corporations, have the right to sue and be sued, and have the right to acquire property. Each of these has 7 directors. The grant of the government to the farmers' clubs was last year $26,644.50. You may say, perhaps, that the organization of these farmers' clubs costs the government a great deal. We spend not only that grant, but we spend a good deal also for subscriptions to a journal of agriculture, which is sent to every member of the farmers' clubs. When we are going to have farmers' institutes the dates of the meetings are advertised in the Journal of Agriculture, and so every member of the farmers' club knows the dates of the farmers' institutes. The number of members of farmers' clubs last year was 58,310, and the amount which the government pays for the Journal of Agriculture is $20.000 a year, so that with the traveling expenses of the lecturers the government of the Province of Quebec spends more than $60,000 for

farmers' clubs and for farmers' institutes, but we think that we receive full value each year. In every new parish where a farmers' club is organized the development of the rural resources has been great. If there was no cheese or butter factory, as soon as the farmers' club was organized one was erected. These farmers' clubs pay attention not only to the farmers' institutes, but they also hold competitions. They even have experimental parcels or plats for the education of farmers. The farmers' clubs also pay attention to live-stock breeding. Last year the farmers' clubs paid $17,940.49 for the purchase and maintenance of thoroughbred live stock. They bought also seeds and fertilizers amounting to $105,795.55. The subscription of every member of a farmers' club is $1, and last year the subscriptions amounted to $113,572.42 in the whole Province of Quebec.

Miss Anna Barrows, of New York. I want to say a word with respect to the methods to be used in our farmers' institutes, particularly with relation to illustrative material. As a teacher of cookery, I have learned a great deal from the methods of the institute people. It is of first importance that our institute instruction shall be in a form that is easily understood by uneducated people. My criticism of nine-tenths of the charts is that they are not adapted to the purpose for which they were designed, and we feel that we need to have charts prepared that will be better suited to the class of people to whom our instruction is to be given.

Mr. C. M. Hanna, of Kentucky. The farmers' institute work may be summed up in one proposition—that is, how to reach the people. They are not intended for men who already are informed. It is to the ignorant that the message must go. We want to reach the masses. In order to do this, we must bring a simple message adapted to those who do not know. You need not pay attention to the man who can go to college. He is safe.

Mr. A. M. Soule, of Georgia. I undertook when I started out in the institute work to use a stereopticon, but I got tired of fighting express companies, paying express bills, having gas to go out on me, and getting my slides broken. Stereopticons are good things, only that you can not use them except at night meetings and under very favorable circumstances. I have tried charts, all kinds of charts, and they are fairly successful. I have found it quite effective to take a sample wherever possible of the material about which you are talking, as in the case of soils or fertilizers, and exhibit them in glass tubes of considerable size and show the principle of capillarity and the difference between a soil that has vegetable matter in it and one that has none.

Mr. Hamilton spoke of a series of charts which he has planned and partly executed, and expressed the opinion that the use of such illustrative material is bound to develop in institute work. He said: "Of course, the ideal illustration is the thing itself. The next is a good representation either by photograph or painting that shows the subject as it is and then has the features so arranged that they will teach some important truth."

Mr. George McKerrow, of Wisconsin. It is the province of the farmers' institute to reach the plain people, and we must do it very largely through the eye—that is, by illustration.

In holding judging institutes at county fairs we excite a great deal of interest in live stock, but we can not have animals on every institute platform. The next best thing is the chart. They should be charts that have local interest connected with them. We have been carrying charts in Wisconsin for the last fifteen years, and I find that when we present to an audience a fairly good outline of an animal they are all interested.

Mr. A. E. CHAMBERLAIN, of South Dakota, said that charts were used with satisfactory results in institute work in South Dakota in illustrating lectures on live stock and feeding rations.

The following report was presented by Mrs. Adda F. Howie, of Wisconsin:

REPORT OF COMMITTEE ON WOMEN'S INSTITUTES.

While it must be conceded that women's institutes may be an uplifting power toward the betterment of rural homes and all other farm conditions, and while there can be no question as to the beneficial results and the intense interest manifested in this work, it is doubtful if, under present conditions, the real object of our intentions is attained. While the townspeople show a gratifying eagerness to profit by the appreciated instruction, as a rule the actual farm women, who are supposed to be most in need of progressive methods, are somewhat reluctant in taking advantage of this opportunity to add to their housekeeping knowledge.

Whether this attitude is assumed from a sturdy confidence in their own ability to successfully cope with all domestic problems or an aversion to arousing any suspicion as to the least deficiency in their home training, I am unable to say, but observation leads me to believe that the attendance of the average women's institute is largely from the town, rather than of the people whom farm institutes are calculated to benefit.

In some localities the small proportion for agricultural instruction will not admit of separate work along this line, and whether this condition is to be regarded as fortunate or otherwise, the query must for the present be a matter of individual opinion.

Yet, it seems to me, that as the farm home and farm life and labor are so closely associated, the dividing line should be invisible, for whatever pertains to the uplifting character of one must as effectually benefit the other, and I see no good reason why the meetings held for the improvement of either land, live stock, or homes should convene in separate sessions. And the flimsy excuse sometimes advanced, of topics unsuited for discussion before a mixed audience, should be speedily banished from the list of objections. There is no subject that is of vital import to this line of business that should not be of equal interest to the progressive farmer and his family. And a speaker who can not handle any topic worthy of discussion with a delicacy that will cause no embarassment or offense should promptly have his or her name stricken from the list of institute workers.

If there is to be a permanent improvement in rural affairs, the agricultural teachings of this great nation should be too broad to be hampered in any degree by set lines of sex distinction, and both men and women should zealously advocate all things that will bring about a closer bond of sympathy and interest between the farm home and all manner of farm life and effort. Good, sensible women have a refining influence and are a desirable and inspiring factor, both on the platform and in the audience, at any and all meetings. Where it is convenient to hold special sessions, such gatherings may bring about gratifying results, yet care should be taken that this line of educational work may not be too widely diverted from its original purpose. And where two meetings are held at the same time it is quite necessary that the institute be located in a town large enough to provide two assembly rooms, consequently in the isolated districts where the coming of an institute force is regarded as an event of importance the country people must be content with a more limited programme, and the sensitive tiller of the soil is quite likely to be jealous of his just rights for public consideration.

We would respectfully suggest that in every locality where the appropriation is insufficient to admit of special work throughout the entire State:

(1) That one hour during each daily session of a farmers' institute be devoted to talks relative to domestic affairs, such as the systematic planning of housework, the necessary and sanitary furnishing of sleeping rooms, the proper cooking of wholesome food, suitable to farm life and conditions. The economy of time, strength, and material, and numerous other subjects, are of vital consequence to the welfare of all men, women, and children, not excepting those who are so fortunate as to dwell upon farms.

(2) In view of the increasing interest taken by all classes in farm life, where it is the will of the people to hold separate meetings, in large towns, we would

recommend that in addition to talks on domestic affairs, competent speakers be employed to give practical instruction to the women on the best methods of cattle rearing, dairying, horticulture, poultry raising, and up-to-date farm management, in order that a more extensive knowledge may lead to a deeper interest in and a greater respect for every phase of farm life. For the outcome of such sentiment must eventually result in a joyous, happy contentment.

Mrs. Adda F. Howie,
Dr. A. Backus,
Mrs. F. L. Stevens,
Committee.

Discussion.

A. Backus, of Ontario. The progress of women's institutes in the Province of Ontario has been rapid and the work satisfactory. The subjects taken up included domestic science in its various branches, some of the social questions of the day; also at a few places conventions have been held where the work in its entirety was discussed, and in all localities where farmers' institutes exist the women's institutes have by cooperation in their united and special meetings added much interest.

There can be no doubt of the benefits of women's institutes, and in those localities where they have been long established the appearance of the houses, the management of the homes, and the brightness of the women testify louder than words of what this organization is doing for women in the rural districts.

In planning future work for women's institutes I would suggest:

(1) That more attention be paid to engaging the sympathy of the younger women, and that such subjects as would interest them and in which they would take part be given a place on every programme.

(2) That the importance of motherhood, its worth in the home, and its value to the State should be considered as a vital question in domestic science and to the country.

(3) That particular attention be given to the care of children, domestic nursing, and sanitation, and that capable speakers should be sent to interest the women of the country in these important matters.

Mrs. F. L. Stevens, of North Carolina. Work of this kind was begun in a small way at the farmers' institute convention in 1905, and the women's institute was formally inaugurated in 1906. We had 150 women's institutes last year. Our work is carried on in connection with men's institutes. That is, when the men have their meeting the women also meet in a session of their own in another hall. We have our women's institute in the morning, and one session in the afternoon. The last hour of the afternoon session is devoted to a general meeting, when there are addresses upon home topics by men and women. This is distinctively an arousement meeting. This work is new in the South. The men are conservative and the women are timid, and both need just this kind of thing. Every effort looking toward the advancement of women has been step by step.

The subjects discussed in these meetings are distinctively home subjects, the greatest stress being laid upon the art of cooking, which in the past has generally been relegated to servants who are ignorant and untrained; but women now come to these institutes in a spirit of wishing to know how themselves and how to teach their daughters to cook. They want to know how to get rid of the feeling that it is a disgrace to do housework, especially to cook. To lift this phase of household work from the plane of drudgery into healthful and interesting work is one of the chief functions of women's institutes.

Quite a good deal of stress is laid in our institutes upon the question of sanitation and the prevention of the easily prevented diseases. Along with

the general principles of cooking we discuss invalid cookery. But few women know how to prepare invalid dishes, especially for the feeding of invalid children. The subject of dressmaking and millinery also comes in for its share of attention, as well as the improvement of the farm home with a view to making country life more attractive and keeping the boys and girls on the farm. During the last season we have touched particularly upon the question of the water supply for the farm.

During the last summer two special cars were run through certain parts of the State, one containing farm implements and the other fitted up as a domestic-science car. In one end of the car was arranged a model kitchen, equipped with an oil stove, an alcohol stove, a kitchen cabinet, a kitchen sink, and numberless conveniences for the farmer's wife. This work was most enthusiastically received by the women. In this car each morning was held a demonstration in cooking the staple articles of diet, such as biscuits, rice, coffee, and some simple dessert. This traveling-kitchen idea was new, and we think that by this means we have done more effective work during this last season than ever before. We get the best results in our women's institutes when there is cooperation between the town women and the country women. In one county we have a permanent women's institute that has been in progress for more than a year. Last fall a women's institute was conducted by the women of this neighborhood, and another institute was held in which the women of the town and the women of the country came together, and the merchants' association of the town entertained the country women at dinner and came to the meetings and encouraged the country women in every way that they could. The work is most successful where such cooperation can be secured.

Another feature has been the evening lecture. This lecture is devoted to improvements in agriculture, improvements in the country home, improvement of the home grounds, the vegetable gardens, and the flower gardens, and has been very successful. This evening session was always an agreeable closing of the day's work. It brought together the young people in this semisocial way and in a way to entertain and at the same time show them that there are things in the agricultural life of which they had not thought heretofore. As a result of these three years' work in the women's institute and as a teacher of nature study and agriculture in many of the summer schools of the State, I believe that this work is one of the ways by which we may solve this problem of country life. If we can interest and arouse enthusiasm in women's work among the mothers and the sisters of the farm home we will do a great deal to bring about improved conditions in country life.

Mrs. W. R. Hollowell, of North Carolina. At the institutes held for the farmers' wives in North Carolina, it is the country women who are there and not the town women. Wherever the town woman is made to understand that it is worth her while to come to these meetings she is there. It is just as necessary for women to understand their duties so as to be able to keep up their part of the farm enterprise as it is for the men to understand their duties in order that they progress along the particular lines in which they are interested. The country women should have the opportunity to attend meetings in which their interests will be discussed, and ways and means should be provided for the maintenance of the women's institutes.

Mrs. W. N. Hutt, of North Carolina. There are a great many things of course that are of common interest, such as the education of the children, the improvement of the farm home, and the matter of sanitation, which can be discussed in a joint institute, but there are other matters that must be discussed sep-

arately, and this can only be done where the women hold sessions by themselves and the men have separate sessions as well.

Mrs. HELEN WELLS, of New York. I believe that one of the chief works of the women's institute to-day is to teach the nobility of motherhood. I believe also in the separate meeting. The future of this country and the future of the farmers' institutes are going to depend largely in getting the women interested. and I do not know any better way than to invite all to come—invite the town woman, the city woman, the country woman.

We have conducted what we call the "discovery meeting," in which every woman is asked to present something that she had found out for herself from her experience. We ask them to bring something that they have learned that will make work easier, life happier, and home brighter. By this means we are able to get from all of the women an expression of view, ideas that have been tested by many years of practical experience.

Mrs. HOLLOWELL. I do not wish it to be understood that I object to the attendance of the city woman. The practical difficulty where country women and city women meet together is that the country woman is likely to sit quietly by and let the city woman do all the talking. We want it understood that the institute is for the woman in the country, and she is to have precedence in every particular in these meetings. This is also another reason why we should have separate meetings.

Miss ANNA BARROWS, of Massachusetts. We should hold the farmers' institutes in such a way to give the people appetite for more. One institute in New York State seemed to me ideal. The first morning was principally for men; in the afternoon the women came in; in the evening a nature-study lecture was given, and a brief demonstration lecture interesting to boys and girls. Then a few minutes were devoted to the cookery question, adapted to children; then an illustrated lecture. The next day in the afternoon, the last session, when the attendance was the greatest, the time was devoted to giving men instruction upon special subjects.

Miss N. S. KNOWLES, of Iowa. Our purpose is to improve the farm home, and we can only improve it to perfection when the man understands the woman's work and when the woman understands the man's work. Then we have perfect sympathy and then we can have progress. The best questions that come up in our farmers' institutes are those that come from the farm home, from the women. When they go home I know they ask questions and numerous letters come in from communities asking about the short course that we give. The women talk over these matters with the men, and they hear about the short course and then we go back to them and we give them a week of short course, in which the women are taught along domestic science lines.

G. A. PUTNAM, of Ontario. In Ontario there are about 470 of these women's institutes, which are holding regularly monthly meetings each year. This work has grown up in the past ten years. I recognize that you have different conditions in the South. In the North wherever you have the men the women are there.

We have had separate sessions for the women. These sessions have for the most part been carried on by themselves with the talent which they have within their own membership. You must give them something to do, and direct them as best you can how to do that; in fact, if you get them interested in one or two meetings, they do not need much direction after that, because they know the special ability of the women in their locality, and they will develop that ability along those lines. When we send delegates from the department to the winter meetings, both men and women's institutes are held upon the same

day. We furnish them separate sessions in the afternoon, the farmers taking up some separate subject which the women are not interested in, and the women take up their special subjects. Then, when the evening session comes, we take up mutually interesting subjects. Last year we had an attendance of 100,000. The great majority of the work is carried on by the organizations themselves, and the best work which is done in these organizations is by the members. We have organizations not only in the country districts, but in the towns. In some districts the women come from the country to town and the town people discover from the institute that they have much to learn from the people in the country, and the people in the country districts learn much from the town people. Some of our strongest organizations are made up of town and country people alike.

Under the general head—The Farmers' Institute with Relation to Other Educational Organizations—the following paper was presented by Eugene Davenport, of Illinois:

THE FARMERS' INSTITUTE WITH RELATION TO THE AGRICULTURAL COLLEGE.

The place of the farmers' institute in our educational system is a subject of infinite interest, and we do well to expend some time and energy in the attempt to fix the boundaries. When we attempt to consider the relation of the institute and the college, we are concerning ourselves with two of the greatest agencies of agricultural progress, and it will not be strange if we have difficulties in deciding offhand just what these relations should always be.

I shall simply undertake to give as clear an idea as possible of the conditions in the State which I represent, not as a solution to our perplexities, but as a contribution to thought and discussion. I shall mention not only their advantages, but their disadvantages, and in offering this contribution to your thought I do it fully realizing that local conditions will go far toward deciding the details of management of the institute work and to a large extent the relation that should be maintained between the institute and the colleges.

In trying to lay the Illinois plan before you, I must distinguish between addresses and attendance at institutes on the one hand, and their location, date of meeting, and character of the programme on the other. The college activity is entirely confined to the former of these two interests, and it is in no wise responsible for the time or place of the meeting or for the general character of the programme. College and station men are invited to speak at institutes as specialists, not as entertainers, nor are they expected to prepare general talks on agricultural affairs. Each prominent employee of the college and station has his specialty. This specialty is known to the institute people, and when he is invited it is in order that he may give to the institute the latest and best information along his particular line with special reference to his own investigations. General talks or addresses upon subjects not under investigation at the experiment station are always taken by other people, and the college or station man is not expected to answer questions outside his own specialty, all of which is upon the theory that the function of the college and station is to give to the farmers through the institute, as it does through various other organizations, the latest and best information and advice of which it is possessed, regarding the institute all the time as strictly a farmers' institution.

The advantages and disadvantages of this system are about as follows:

Advantages—

(1) A ready road from the laboratory to the farmers' ear through the most respectable channel and organization whose purpose is to secure and disseminate information.

(2) Freedom from responsibility for fields of interest which are in no wise represented in the university.

(3) Freedom from interference with local conditions or prejudices.

Disadvantages—

(1) A heavy call for the best known and most desirable men, which if not controlled will injure the work of the class room and laboratory.

(2) A slight tendency to load the programme with university specialists instead of drawing sufficiently upon local men who have been eminently successful, but not inclined to public speaking.

Responsibility for the programme and the entire local management rests upon the officers of the county in which the meeting is held. The advantages and disadvantages of this point are almost obvious. It offers the opportunity for the very best and the very worst institutes imaginable. Where the officers are capable and interested and a good institute has become fashionable, there the attendance is of the very best farmers, and tremendous progress is made in the propagation of rational, but advanced ideas. On the other hand, where the local officers are incompetent or not interested, the institute is practically without effect, the only remedy being, when conditions get too bad, to secure some officers who will not betray their trusts.

The organization that is responsible for the general policy of farmers' institutes in Illinois is the organization known as the State institute, a body composed of 31 directors, 1 from each Congressional district (chosen by delegates at the time of the State institute), and 5 ex officio members as follows: Superintendent of public instruction, dean of the college of agriculture, president State board of agriculture, president State horticulture society, and president State dairymen's association.

This board of directors is recognized by the law as the State institute, and appropriations are made for their expenditure quite distinct from the appropriations made direct to the counties for the county institutes. This body has, besides its usual business officers, a recording secretary and a superintendent, which latter officer concerns himself with the conduct of county institutes, consulting with local officers as to date, place of meeting, and character of programme, and especially as to the topics that should be presented by the university people, and all university engagements are made through this superintendent.

The power and influence of the State institute are exerted in an indirect rather than in a direct manner. It has no authority whatever over the county institute further than to refuse to certify the bills for payment if the expenditures have not been according to law, but the institute itself exerts a tremendous influence through the policies adopted by the board of directors and carried out by its superintendent and secretary, not only through county institutes, but in connection with its State meeting. It is the policy of this body of representative men to take an advanced position with reference to large questions that concern agricultural advancement and in their discussion to make the State meeting, and so far as possible the better county institutes, the forum for their discussion. To this end, after having adopted a policy concerning some new question, it brings into the field the best obtainable talent for its discussion, and in this way a number of important questions have been determined and the issues settled permanently for all time.

The advantages of this method of procedure may best be brought out by some of the work that has been accomplished through the State institutes. For example, it was this body that undertook some ten years ago the rejuvenation of the college of agriculture at the university. At the time it began its efforts the college appropriations amounted to less than $5,000. There were less than a dozen students in attendance and less than a half dozen teachers. The small amount of room available was in attics and basements, and there was no material for instruction except what could be utilized out of the experiment station. This body of men set to work deliberately to improve conditions. It drafted and recommended to the legislature for adoption a bill dividing the Federal appropriations first one-third, and later assigning one-half to the college of agriculture. At the same legislature it was mainly influential in passing the bill appropriating $150,000 for the agricultural building. It did not discontinue its efforts with these first results, but has always since exhibited the most lively interest in the affairs of the college.

This interest has been shown in no clearer way than in respect to attendance of students. Having provided funds and the building, it insisted that a sufficient corps of instructors should be provided for the university out of the funds set aside, and then deliberately went after the students. It requested of the university the establishment of a system of scholarships, one for each county, to be filled by individuals to be recommended by the institute directors. This the university very obligingly did, and the directors have ever since filled the quota from their respective districts with the very choicest of young men. Now,

and for several years previous, the question of attendance of the right kind of young men takes care of itself, but during a period of half a dozen years it was this body that was more powerful than all other influences combined to bring to the university the right stamp of young men. The practical results of the work of the institutes in securing students for the college of agriculture can be summarized as follows:

The list of agricultural students for 1891 was 7; 1892, 6; 1893, 13; 1894, 5; and 1895, 9. In 1895 a committee visited the university. In 1896 there were 14 students; in 1897, 17; and in 1898, 19. By this time the institute was in active operation and a bill was before the legislature. In 1899 there were 25 students; in 1900, 90; 1901, 159; 1902, 232; 1903, 284; 1904, 339; 1905, 330; 1906, 361; 1907, 512; and in 1908 the estimated attendance is 550 students.

This increase, beginning distinctively at a particular year—1900—was the result of the work of the Illinois State Farmers' Institute. Of course, other influences were at work, but the institute was the chief factor in securing these results.

The institute early took a decided stand on the school question and the most of the sentiment that has been made for consolidation of district schools and for larger and better high schools has been made by this body. At this writing I am just informed that the executive committee has officially indorsed the recommendation of the State educational commission for the township system of school organization, all of which means that the power of the institute will be used for the support of this recommendation. They have studied the school question and produced literature which has been published and widely circulated.

A large share of the sentiment in the State for the introduction of agriculture into the schools is directly traceable to this body. In all this work they have been greatly aided by every other agricultural association, but by common consent it has been this body that has taken hold of the more general questions like those of education.

Pursuing this policy, the State domestic science association was organized as an annex of the institute. The result of this movement was the coming to the university of a department of household science, a department which was fostered and mothered by this branch association until it was able in every way to live upon its merits. Substantially the same system of scholarships was devised for girls in this department as has been secured for boys in the college.

The institute, however, has not confined its energies and activities to educational problems. The troublesome question of good roads has been discussed up and down the State, and while the institute has never taken sides between hard and soft roads it has always advocated the thorough discussion of the road question and its settlement according to local conditions.

The disadvantages of this system are, of course, that it does not "manage" the county meetings, and depending as it does upon influence rather than upon authority it perhaps does not secure as uniform results in the county institutes as might be secured in other ways. The advantages, however, under Illinois conditions are very many and very great:

(1) Wherever the local interest is healthy and strong it is untrammeled in its power, having an institute which will express its ideals and needs.

(2) This leaves the State institute free to handle the larger questions that can not be handled by the county institute. These larger questions of State-wide import, when once indorsed by the institute, are made matters of general public discussion of State-wide range and their settlement is therefore only a question of time. They have not only concerned themselves with such questions as those mentioned, but they have gone further and have from the first been the organization identified with the soil experiments at the university. It is their body that is named in the appropriation bill as jointly responsible for the carrying on of the work, and it is their advisory committee which is involved with the expenditure of the funds and with the lines of investigation.

(3) A third advantage is that a powerful State organization is provided for meeting and handling issues affecting agriculture whenever they arise, providing in this way a kind of clearing-house for public opinion as well as a means of conducting a propaganda for advancement.

(4) A fourth advantage is the character of the State meeting, which is not a round-up of county institutes, but rather a unique gathering of the leading men from the different sections of the State for the discussion of the larger questions.

Thus briefly I have sketched the plan of cooperation in Illinois, not claiming that it is without its disadvantages, but undertaking to say that it is an ex-

ceedingly workable system and for the conditions under which it is developed it is ideal.

I can not close this paper without an additional word as to the advantages of the advisory committee relation as represented by the institute advisory committee on soil investigation. Briefly, the advantages of such a committee are about as follows:

(1) The advice of five leading farmers interested in the line is always available.

(2) This committee provides an excellent and early avenue for dissemination of new information.

(3) The fact that leading farmers have been intimately associated with the investigation inspires confidence on the part of other farmers.

(4) Such association on the part of the interests represented is a large element of safety to the station and the station worker.

(5) The advisory committee, being representative of the State association, is an exceedingly helpful means for determining future lines of work and securing funds for its prosecution.

In closing this brief presentation of the Illinois method and plan, I beg to call attention to the fact that it is in harmony with what we call the Illinois idea—that is, that the college and station are not the sole leaders of agricultural progress, but, rather, that this leadership belongs with associations of farmers of which the institute is one of the strongest, and that back of every principal line of activity in either college or experiment station is an organization of Illinois farmers.

Discussion.

B. W. McKeen, of Maine. The institute is very dependent in our State upon the college of agriculture and the experiment station for instructors, and on the other hand the institute is doing for the experiment station and college precisely what they have been doing in Illinois. Largely in consequence of what the institutes have accomplished has been the increase in the number of students in our college of agriculture, which is 300 per cent more than the increase in the number of students in any of the ten colleges in our State university.

F. B. Linfield, of Montana. We are a new State, and the farmers' institute has been the creature of the agricultural college and experiment station. In other words, the dependence almost wholly for institute work has been upon the college men and the experiment-station men. They have planned and directed the work. No one else seemed available. On the other hand, no more efficient help has come to the college than has resulted from the farmers' institute work, not because anything was said at the meetings especially directing attention to the college, but from the fact that the college and station men who are out in the field have been presenting to the farmers practical information that they could rely upon. This gave the public an idea of the kind of information that the college was giving and of the character of the men who were doing the work in the institution. A few years before the institutes were inaugurated, the attendance at the agricultural college was from a quite restricted district, within a few counties of the institution. Since the institutes have been in operation boys and girls from every part of the State are coming up to the college, and mainly because they have heard of the institution through the farmers' institutes. The relation of the institute to the college ought to be of the most helpful character, and the college in its turn is equally helpful in rendering the institute efficient.

C. M. Hanna, of Kentucky. Doctor Davenport has brought out some features of work in Illinois quite similar to work that has been conducted in my own State of Kentucky. As early as 1884 I was appointed a committee to inquire respecting the agricultural situation. In the course of my investiga-

tions I went to the agricultural college and found that they had but three students in agriculture. In looking over the implements and instruments for education I found that they were for the most part obsolete, and made a report to that effect; but I wish to say to directors of farmers' institutes who are not college men and who are inclined to line up against and criticise the college, before you do so go to the college and investigate the conditions, realize that it is your college, and that you are responsible for its success. If it is not accomplishing all that you desire, it is your business to lend a hand toward making it what you wish.

Charles McIntyre, of West Virginia. I would suggest to the superintendents of institutes and institute directors that they require their institute lecturers who go over the State to first visit the college of agriculture and the agricultural experiment station. The work of the agricultural college is a great work. The farmers' institute is in position to help the college of agriculture, and if the college of agriculture is not quite what it should be, a general demand by the farmers of the State will very soon effect a change for the better. Every institute worker should be thoroughly familiar with the work of the college of agriculture and experiment station of his State.

On motion, the convention adjourned until 1.30 p. m.

Afternoon Session, Tuesday, November 17, 1908.

The convention was called to order at 1.30 p. m., the president, Tait Butler, in the chair.

The following paper was presented by E. A. Burnett, of Nebraska:

THE FARMERS' INSTITUTE WITH RELATION TO THE AGRICULTURAL EXPERIMENT STATION.

The farmers' institute in every State where I am acquainted with the movement has been an outgrowth of the work of the agricultural college. In States where this work has but recently developed it is equally a result of the work of the experiment station. The method of growth has been different in different States, but always it is the result of a general appreciation of the need for wider knowledge of agricultural problems. Interest has always come first from the most progressive farmers, but later from all classes whose needs have received consideration. This interest has frequently begun by a discussion of the business of farming and has developed a desire for more scientific knowledge relating to the soil, the plant, the animal, and to the family and its social life. The moving force in all this work was either the agricultural college and the experiment station or the forces still further back, which were responsible for the establishment of the colleges themselves and later for the experiment stations.

The institute work grew beyond the ability of college men to handle it, even after their forces were augmented by the addition of the station staff; and the organizations which have grown up are generally either under the control of the governing boards which control the colleges and stations or are so closely affiliated that the institute organization seeks the assistance of men connected with the experiment station. The unity of interest between the experiment station and the institute makes it desirable that they shall articulate with each other so that the institute may furnish a means of publicity for the results of the station and the station furnish the scientific knowledge needed by the institute speakers. The farmers' institute superintendent finds in the experiment station the scientific information needed by institute speakers.

The purpose of the experiment station is to work out better methods of farm practice. This involves the study of many technical questions, all of which, before they can become effective forces in molding agricultural practice, must be adapted to the needs of some special class. The station should first attack those fundamental questions which apply to the industries of a

region, following this work with a study of special problems as they relate to special industries. Frequently both lines of work may be so coordinated as to go forward together. While every station must study many problems, its practical results are likely to be developed in a few lines. It should then endeavor to fortify these results by proving beyond question their practical application and should give such publicity as will affect most beneficially the general farm practice.

Publicity has always been provided for in the scheme of the station, but has always been subordinate to the spirit of investigation, or at least it should be so. Outside of the regular method of bulletin distribution few States have any systematic organization for placing their results before the public. A bulletin editor who shall prepare and furnish newspapers with proper information is very effective in calling the attention of the public to the results of the work of the station.

It is a distinct advantage for every station worker to spend some time in the field in order that he may familiarize himself with the conditions under which the farmer must work and be able to reduce his results to a form which can be applied in practical operations. But regular station workers can not at best give sufficient time to institute work to put the work of the station properly before the people. Neither are the bulletins published by the station sufficient in themselves for this purpose. A wider publicity must be given to the results of the station or it will not secure the greatest good to the people.

By far the most effective way of securing publicity of these results is through the farmers' institute lecture force. The institute speaker should be given an opportunity to get the best and latest results of the station and should be so familiar with the results which relate to his specialty that he can carry these results to the people in a more positive and forceful way than can be done through bulletins. Station results often need modification and adaptation to meet the average farm conditions. If the speaker is himself a specialist he can often work out on his own farm the methods recommended by the station and give these results to the people. The farmer likes to know the principles which underlie the practices recommended and to be reassured by the speaker that they have worked successfully in his own experience and in general farm practice by his neighbors and associates. If the speaker can furnish this convincing proof the principles he advocates will be adapted by many of his audience and further extended by the results of their practice.

It is practically impossible to get continued publicity except through some organized method. Bulletins are valuable mainly for the more systematic reading farmers. A much larger number of people are reached through the farmers' institutes. In Nebraska we print 25,000 bulletins and have a regular mailing list in the State of 17,000. The institute last year reached more than 90,000 people.

Where regular institute speakers are to use the results of the station in their institute talks, it would seem advisable to bring all institute workers together at the station for a normal course of instruction, where all practical results of the station may be put before them. Such instruction will enable them to use the information correctly so far as it relates to the subject upon which they speak. This is by far the cheapest and most practical way under conditions as they exist in many States. The institute normal has been successfully used in many States. The expense should be borne by the institute appropriation or by the speakers. Generally, it will be divided, the speakers donating their time, but being reimbursed for their expenses. If the institute does not bear a portion of the expense it is not so well able to command the time of speakers who find it inconvenient to be in attendance. Every experiment station should gladly furnish such instruction when arrangements are made sufficiently in advance. Outlines making clear the salient points should be furnished by the instructor. Lectures should be followed by thorough discussions, so that the adaptability to farm conditions of the method advocated can be made plain by the instructor or be so modified as to meet the approval of the speakers.

It is not to be expected that the institute speakers, whose value lies largely in their long experience, will be able to adopt and advocate all the propositions advanced by station investigators, at least not until the leading investigators agree better among themselves; but the advantage of knowing exactly the view of the station specialist is great and leads to greatly increased publicity of the

station work. In Nebraska, where one such institute normal course for speakers has been given, great benefit resulted to the station and equal benefit to the institute force. It is our plan to continue this normal instruction at least every alternate year.

The increase in work at the college and station has forced it to decrease each year the amount of outside work done by the regular station staff. This is shown by the percentage of institute work done by members of the Nebraska University and station staff, as follows: In 1905–1906, 32 per cent of the work at institutes was done by university professors; in 1906–1907, 14 per cent; in 1907–1908, 8 per cent. This is due partly to the decreased amount of work actually done by station men and partly to the increase in the number of institutes held. These figures indicate that unless some plan is devised to get more men in the field from the station and from the university faculty their connection with the institute work will soon cease altogether.

The institute management is now advocating the employment of several men on the station staff who shall be selected partially with a view to their ability to present the results of station work to the public. These men, if employed, will work during the summer season in the several departments to which they are assigned, but in winter will be transferred to the institute force, representing these departments upon the institute plaform. The salaries of these men would be paid by the department receiving their services, the institute paying for their services while in institute work, the time of service in each capacity being a matter of previous agreement. It is probable that the departments of animal and dairy husbandry, field crops, horticulture, soils, and veterinary science would be the first to employ field men in the State of Nebraska. It is our intention that these men shall be permanent fixtures in the institution and not that the institute shall be used as a training school for inexperienced men, who shall be enticed to other positions after experience has made them valuable. Whether we shall be successful in keeping men permanently employed under the conditions suggested remains to be determined.

There can be no question of the necessity for men of scientific training and practical experience in the institute field. Farmers are becoming critical students of many of the fundamental principles underlying production and look for information based on correct scientific principles. If the speaker is advocating the rotation of farm crops he is expected to understand more than the fact that rotation increases the average yield, important as this is. He should be able to explain the principles of soil fertility and of soil exhaustion in a thoroughly scientific manner. The man who is to meet the questions of progressive farmers needs fully as much scientific knowledge and practical experience as the man who lectures to a college class. Ability of this grade must be commanded in the institute work, and the organization should be so modified as to make such men available. In my judgment this can best be done if the farmers' institute is allied with other forms of agricultural extension work.

The field for institute work and the relation of the station to the same will depend somewhat upon the organization. In Nebraska the institute management expects to conduct special institute schools, probably for one week only, but possibly of longer duration, where systematic instruction will be continued throughout the entire period. It is the plan that two leading lines of instruction will be offered for the men and one for the women. This systematic instruction must be given by teachers thoroughly trained in scientific agriculture and home economics. It will be extremely desirable that these teachers shall also have practical experience in farming or in housework. There is a demand at the present time in Nebraska for more thorough instruction in the fundamental principles of soil fertility, crop production, the feeding of animals, and dairying than can be given in any one-day or two-day institute, and there are many communities which feel that this short institute does not furnish the information which is needed. Such communities feel that the farmers' institute school in agriculture will meet their needs and furnish the information by which they can improve their agricultural methods. Such schools can not be introduced to any extent without a corps of trained teachers who are employed continuously either in institute or station work.

Much of the interest in the Nebraska Experiment Station is doubtless due to the manner in which our work has been discussed from the institute platform. The farmer who attends the institute and listens to the results received at the

station is convinced that it pays to know the best way, and he seeks information through many channels.

The extension of winter wheat in Nebraska has been greatly fostered by the experiment station and the publicity given by the farmers' institute.

In the improvement of corn the State was divided into corn districts. The leading varieties for each region were tested, and the farmers' institute sent men up and down the State to tell the results of the work. The railroads sent special trains. A member of our last legislature said, "This work with corn by the station has increased the yield in my county 1,000,000 bushels annually." Such results give the station support which it could not get without good work properly presented to the people.

Fertilizer experiments in growing wheat in one of our older counties recently showed that the crop responded generously to nitrogen and not to other fertilizers. If this lesson could be impressed on all farmers in the region, they would sow alfalfa as a means of restoring soil nitrogen.

The work of our station in feeding different rations to steers has proven the effectiveness of corn and alfalfa rations. Such a ration was proven to be much more profitable than the older ration of corn and prairie hay once so commonly used. Both the station and the institute workers have told these results in a manner which has greatly affected the farm practice and has greatly enriched the State. The station could not have secured this result without the cooperation of the institute, and results of this character once proven can not be told too often.

These examples are given as indicative of the great economic value of putting the work of the station before the people in a way which will show its usefulness to the State and will prove that the work of the station is indispensable to the economic development of our agriculture. The general acceptance of the good work of the station leads to a demand for more work and helps to secure the funds from State legislatures. In Nebraska a substation has been established and receives $12,500 annually from the State. The State makes a good appropriation for both investigation and agricultural education and is willing to be still more liberal for these purposes.

It is often a question where the line should be drawn by the station between investigation and publicity. Where the institute and the station are under separate boards it may not be easy to articulate one with the other. In our State the rule is followed that college and station men must provide for their work so that there shall be no loss to students when institute work is being done by a college and station man. All agree, I think, that the State and not Federal funds should be used to defray the expense of publicity through farmers' institutes and that State funds should be available for investigation to supplement the Federal funds.

In States where the institutes and the experiment station are so organized that cooperation between them is not practical, each will work at a great disadvantage. In the discussion of this paper, no distinction is drawn between agricultural extension and farmers' institute work, since in Nebraska all work of this character is done under the farmers' institute organization. In States where two organizations exist for this work there should be some coordination which will prevent a duplication of work.

After discussion, participated in by Messrs. Sheppard, Hoverstad, Wells, and Hall, the following paper was presented by H. J. Patterson, of Maryland:

THE RELATION OF EXPERIMENT STATION TO EXTENSION WORK.

Theoretically the work of the experiment stations, established under the provision of the United States Hatch and Adams acts, is limited to research work and the distribution of the results of such investigations in printed form. Theoretically it might seem desirable for the stations to observe this limitation of work and leave the bureau of information, institute, extension, and demonstration fields for some other agency. Practically, however, it is very doubtful if such a policy would be wise. It would probably be best for the stations to conduct their own propaganda of publicity. However, the experiment stations should hold as strictly as possible to the wording of these United States acts in the expenditure of their funds, received under these acts, and to procure the means for other work from some other source.

No doubt most of the stations found it necessary in the beginning to popularize their work by using some of the time of their men in various phases of extension work. This policy, and perhaps it may be said perversion of function, was probably wise and prevented, through public demand, the modification of the existing laws, and at the same time it caused the enactment of State laws which supplied the means for the legitimate prosecution of the extension work.

That, in the popular mind, something more was necessary than printed reports was evidenced even by the first legislative enactment in America relating to this question. I refer to the provision in the act passed by the Maryland legislature in 1847 establishing an agricultural laboratory for the analysis of soils and fertilizers, and making it a part of the duty of the chemist to deliver one lecture in each election district and a course of lectures in each county town in the State.

It will require no argument before this body to show the necessity for extension work in all of its phases. It is evident to all students of agriculture that the amount of information available is many years in advance of its application by the masses.

I believe that all will agree that this information should be adopted by the masses if much effect is to be exerted on average results. The process of changing the masses by having them absorb information from the few progressive people is too slow. The agriculture of the masses pulls down the average results more than the improvements worked by the few can raise it.

If we agree, as I believe we do, that extension work is desirable—yes, necessary—we then come to the real question before us as to what part the experiment stations should take in its furtherance.

The ultimate object of all agricultural investigations is to improve agricultural conditions and make the business of farming more profitable. To intelligently conduct such investigations the workers must have a broad knowledge of the subject in hand and a full appreciation of the local condition which they set out to improve.

With these facts before them, together with all of the details of work performed and the various difficulties to be overcome, does it not seem reasonable that either the particular investigator, or an agent who can come in contact with them, would be in the best position to present the practical results to the masses in an effective manner? Again, who would have as much interest in pushing the results of a particular station as those directly interested in its welfare? If these propositions be true, then it would seem best for each station to have an extension department.

It would seem to me that the extension work of the stations is very important, and will become more and more so as the work grows. A station not doing work of this kind, as far as the masses are concerned, is like "a light put under a bushel."

The character of the extension work is another important matter to consider. It is the masses of the people that should be reached. The bulletins, the press, and the ordinary farmers' institute take care of the educated and the most progressive farmers. Those who have little or no education and those who have little time or inclination to read or to attend farmers' gatherings are the ones who present the greatest problem in extension work.

The former class of people appreciate the need of help and recognize the agencies that are able to assist them. With the latter class the proposition is more complex. They often do not feel the need of help, and still more often do not recognize or have confidence in the agencies which are dispensing agricultural information. These people must be interested and their confidence gained. The best manner of doing this would be through personal visits of field agents to each farm. To do this would not be as expensive as might be supposed. For instance, in a State like Maryland, with 46,000 farms, they could be visited once each four or five years at an expense of about $10,000 per year. The value of this personal-contact method of dispensing help would be inestimable. Each person visited would at once develop a personal pride and feel that his work was of more importance than before, and if the field agent was fitted to his work he would make that farmer his friend, awaken in him a new appreciation of his business and its possibilities, and leave him in a receptive mood which would be sure to ultimately develop into better farming.

Another class of extension work which would seem to offer a profitable field is the use of the phonograph and the various moving-picture devices. These

have the advantage that they get the attention by offering entertainment and then give an opportunity to give instruction.

The Maryland Station has used these devices in their exhibit work at the county fairs. People attend the fairs chiefly to seek entertainment, and consequently this must be the first factor looked after in an attempt to reach the public at such places. We found in this work that many people would stop and hear entirely through a lecture on such subjects as insect foes and plant disease that would not even have stopped had the author been personally giving the lecture. The presenting of such subjects as spraying, budding, and grafting by means of a stereopticon with moving pictures proved much more effective than a formal lecture. We have planned to develop this class of work still further by supplying the granges, farmers' clubs, and the like with phonographic lectures for each meeting in the year, and also supplementing these lectures, when feasible, with illustrations installed in the moving-picture devices which can be turned by hand.

To sum up, I would say that it would seem to me that the experiment station, in order to get the results of its work put into application, must maintain an extension department, and that this extension work should be developed under the following heads: (1) Issuing bulletins giving results of investigations; (2) issuing bulletins of a popular scientific nature; (3) maintaining a bureau of information through correspondence; (4) giving lectures at farmers' gatherings; (5) through demonstration work at home and distributed through the State; (6) making exhibits at fairs and expositions; (7) maintaining field agents for visiting farmers who will collect and dispense information; and (8) presenting the results of work by phonographs and moving-picture devices.

A. B. Graham, of Ohio, presented the following paper:

THE FARMERS' INSTITUTE WITH RELATION TO RURAL PUBLIC SCHOOLS.

During the past forty years there have come industrial conditions which have rendered necessary a greater amount of hand labor in manufacturing than in farming. Factories are now filled with men from the farm and small villages. Owners of farms have many times sought for themselves and their children a better social atmosphere and higher educational advantages in villages of from 500 to 5,000 people. The farmer who retires usually purchases a small home in a village or city. On the farms are found many renters or hired men who, as a rule, change their residence frequently enough to render more or less unstable conditions and interests in the little rural school. Many resident landowners have no children, and some have only one or two.

The soil has been gradually losing its fertility; machinery has become necessary in extensive or intensive farming; no longer in small areas of territory are found the number of young or old entering into the social or religious life of the community; the introduction of machinery has made each farmer more independent of his neighbor in doing work which once required a number of helpers; and the telephone and rural mail have come to make more rapid the transaction of business and to hasten the transmission of news.

The demand for factory help, the failure of the soil to respond as generously as it once did when there was not apparent the necessity for wisdom in the methods of farming, the fact that man is a gregarious animal, and the inefficient school system have caused many to seek homes in villages and cities.

The annual decrease in the school enumeration in townships shows many subdistricts with a school enrollment of from 3 to 15 where once were found from 40 to 75 pupils. An examination of the enumerations in fifteen of the best farm counties shows an average to the county of nearly nine subdistricts, each of whose enumeration is 15 children or less.

The fact that wages for rural school teachers are not equal in purchasing power to what they have been for thirty years, the age limit at which certificates may be granted, a better intellectual qualification, the short time positions may be retained, the increasing demands of public sentiment as to dress and social duties, the refusal of the law and medical colleges to accept teaching certificates offered to meet entrance requirements, and the lack of proper organization and careful supervision have all had a tendency to lessen the number seeking positions in rural schools. Not the raising of the standard of teachers' examinations and the increased demand for better training, but small

remuneration, insecurity of the positions, and the never-ending meddling of those not directly interested in the schools, have rendered rural schools less desirable to those whose services should be commanded by such communities.

The demand by those living in the country for an education that will meet the needs of the most progressive, brought into our statutes a general law providing for centralized and consolidated schools that would in a few years equal in equipment, courses of study, and corps of teachers, the village or city schools, and, in point of natural surrounding and conditions conducive to forming habits of hard work, far excel what the city or large village may offer.

The cost.—In thirty townships and special districts which the writer has visited, the question has been asked, Is it cheaper? The answer many times was, *It is not how cheap, but how efficient.* While a completely centralized system may cost a little more, the cost per pupil on the average daily attendance is not so great.

Many townships have voted to bond themselves from $5,000 to $12,000. There are others that have accumulated enough in the building fund to keep down the bonded indebtedness to a very small amount. The fine building and equipment at Lees Creek, Wayne Township, Clinton County, Ohio, cost $17,500, but bonds for only $6,000 were issued, all of which are paid.

Routes are let to the lowest responsible bidders; the amount paid varies from 70 cents to $2.50 per day, varying with the number of miles, the number of children transported, the condition of the road, competition in bidding, etc. The distances vary from 2½ to 8 miles; and the number per conveyance from 6 to 27. Average cost per day for conveyance is $1.50; average distance, 4½ miles; average number per conveyance, 20. Wagons cost from $80 to $75. At the central school there is but one pump, one heating system, one set of charts or maps, one roof for repairs, few outside buildings, one fence and only one or two of any other things which under the old plan must be purchased in quantities or in as many sets as there are schools. There are either three or four teachers in the elementary grades and one or two in the high school. Wages for elementary teachers are from $40 to $55 per month. High-school teachers receive from $50 to $100 per month. Janitors receive from $10 to $25 per month.

The little subdistrict of 3 or 4 to 20 pupils and the central or consolidated school of 100 or 200 or more children may each pass by the name "school." A 20-dollar cow and a 50-dollar cow may pass by the same name, but the blue milk and the thin cream of one and the rich milk and thick cream of the other make a great difference in the cows. So it is with the centralized or consolidated schools; the product is the gauge of efficiency.

No one, after making even the slightest investigation, can deny the fact that more children go to school more regularly than under the subdistrict plan. The same money goes further in producing an educated citizen than under the old plan.

Routes.—In townships or special districts where there is nearly or quite complete centralization no attention has been given to the old subdistrict boundary lines in planning the routes. It appears that every effort has been made to have the children at the farthest points reach the central school in one hour, or in an hour and a quarter when the roads are in fair condition. Routes are from 2½ miles to 8 miles long. The average is about 4½ miles. In northwestern Ohio there are no pikes worth speaking of; sometimes it is necessary to use three or four horses. In western and southwestern Ohio nearly all roads on which there are school routes are constructed of good gravel or crushed stone.

The school library.—All townships except one answering our inquiries about the old way and the new have said that there was no subdistrict library. In the centralized school, as a rule, are excellent libraries in which are found material for all grades that can read reasonably well. Books on agriculture are also found in many of these libraries.

Disposition of abandoned school property.—The grounds on which many schoolhouses have been built have been deeded to the school district for school purposes only. In many cases the buildings have been sold and removed, and the right to the school ground has been relinquished by the board of education when the houses have been abandoned for the centralized school. Property upon which there was no restricted title has been sold to the highest bidder. Prices have ranged from $200 to $700. Some school properties are now comfortable dwelling houses; others are small barns or stables.

Accidents and diseases.—With or without centralized schools, accidents and disease come as a part of the ills of this world. Investigation has been made as to which of the two plans offer the fewer possibilities for accidents and the better conditions for preventing the spread of contagious diseases.

Broken limbs that have come from climbing into passing wagons, cuts and bruises from stone throwing, tearing of little ones' clothes by those a little larger and older, not to speak of frozen toes, fingers, noses, and ears, may be charged up to the old plan. From the time centralized or consolidated schools have begun in our State only a few accidents on the road to or from school have occurred.

It is a fact that it has been necessary to close centralized schools just as it becomes necessary to require church services to suspend for a few days or that an entertainment be postponed during the few days of alarm or during an epidemic. The danger of the spread of diseases is impressed upon people and greater pains and care are taken to prevent contagion than formerly, when only one little school was closed and the children and parents continued going to church, Sunday school, sales, parties, and to make the usual neighborhood visits. Very few centralized schools have been closed.

Children that become sick at school are, as a rule, nearer a physician than at home. If necessary to take them home immediately, private conveyances have been used, sometimes at the expense of the board, sometimes at no expense. If not, they are cared for in the wagon by the driver and taken as nearly as possible to the door of their home.

Games.—Under the old plan in many subdistricts there are not enough children to play organized games. School games are no small part of school life; in these games there is an opportunity for fairness, justice, and many other minor virtues to be displayed. Here is an opportunity for the moral precepts and examples in the schoolroom, home, and church to become a part of the life of the child.

If a school is to prepare for life there should be enough children in the schoolroom or on the school ground to make social life a reality. A child brought up in a home where it has no brother or sister to question its rights, or a few children on a school ground where there is no particular right to be defended or duty to be performed, does not get a true notion of what community life is. Man is a gregarious animal. He desires to be where a crowd is occasionally and to be stimulated to activity.

Because numbers and wholesome rivalry arouse activity in class and games, everything should be done to restore the same school spirit once found in the country district school of from 40 to 75 pupils. On the ground of from 2 to 5 acres of the central school are not only the imitative games, but the blood-stirring social games of blackman or pull-away, basket ball, fox and geese, and prisoners' base. Vigorous physical exercise begets a desire for work in class. Can there be any wonder that the centralized districts have a larger percentage of pupils in their high schools than any others in the State? There is no breaking up of the subdistrict social relation and forming another at some village or other high school; their associations are continuous from the lowest elementary grades to the last year of the high school. The social life and class work of the children of those who must move from one part of a township to another are not broken into by any change of residence.

The school studies.—As a rule, the elementary grades are taught more thoroughly, because both teacher and pupil have more time in which to do the work. The old programme of from twenty-five to thirty-five recitations a day has been shortened, so that a teacher can prepare herself for the work of the day and feel a sense of satisfaction over what has been accomplished.

In the high schools of centralized districts are found many men and women who are graduates of colleges or who have made some special preparation for their work as high-school teachers. In the courses are those branches usually taught in villages of from 1,000 to 1,500 people. Several have already introduced the subject of agriculture as a science branch and are looking forward to providing equipment for carrying on the necessary experimental work with soils, soil water, and the study of fruits, insects, etc., on the school premises. In centralized and township high schools great opportunities for improving rural life are presenting themselves. Where there are centralized schools tuition is no longer paid to near-by villages and cities.

Advantages in brief.—(1) Better teachers will be secured and retained longer. Instead of passing the teacher around, the teacher is retained and the pupils

are passed from grade to grade. Better supervision because the superintendent is directly in touch with each grade and each teacher.

(2) It makes possible a school equal to the graded school of the village or city and retains every valuable feature of country life.

(3) The general health of the children is better. There are no wet feet and draggled clothing. There are fewer colds and resulting diseases.

(4) The morals of the children are improved because common offenses to decency are held in check far more than under the old plan.

(5) It is the one great means for the introduction of agriculture, domestic art and science. and nature study into the country schools.

(6) It increases the value of farm property for those who desire to sell and provides a broader education for those who remain in the country. Under this plan whole families do not need to move to town to educate the children.

(7) The renter may move as many times as he pleases within the same township and his children are always in the same social and school atmosphere.

(8) The social life of the young people is integrated instead of being disintegrated under the plan of paying city tuition.

(9) Quartets and choruses are organized. Congregational singing in the churches increases in quality and quantity.

(10) The Sunday schools have increased in size and interest because of school day associations.

Some difficulties.—(1) Prejudice against a new thing and sentiment that prompts us to quote "Forty years ago," and relate some of our childhood experiences that are so vivid and so closely associated with the little weather-beaten schoolhouse that, when all sentiment is thrown by, did little more than house us, sometimes prevent children from having modern advantages.

(2) The chief difficulties besides prejudice are bad roads, hilly country, and negligent drivers. The use that is being made of roads by the rural mail carrier, by milk haulers, and others who travel them daily is arousing an interest in road building that will make them of greater service to all. A negligent driver should meet the fate that some have already met—immediate dismissal. Negligence on the part of a driver is no less inexcusable than from a teacher.

The whole story.—A change in social and industrial conditions, resulting in small rural schools, the necessity for higher education and better teachers, the restoration of the wholesome social life once found in rural schools, the demand for closer supervision, and the call for industrial education for the farm make the centralized school the farmers' school.

The introduction of the teaching of agriculture.—The function of an agricultural course in the high school should be to offer studies whose general cultural value is quite as great as is their agricultural value. A young woman or a young man who sees in his agricultural work little else than the scientific side will enter life with the all-too-prevalent belief that only the practical is the open sesame to the greatest pleasures of life.

Perhaps the county, township, or village high school offers its courses at the period in the life of the child when its studies have a most beneficial effect. Since in this period the individual is seeking the cause for the effect and is looking for results from certain causes. Life habits are being formed not only for citizenship but for occupation. Neither an agricultural nor a manual training course should be offered as substitutes for the present course, but rather as a more direct adaptation and application of the present studies to the industries of the people who support the school. A protest has often been sounded against secondary education in the expression, "My child will never become a teacher or a lawyer." The demand for industrial education, and the protest against the so-called cultural and disciplinary studies, will never be properly satisfied by substituting a majority of agricultural studies or manual exercises for studies that reinforce or furnish a foundation for the moral and social virtues incident to agricultural or applied science work in such courses. The question is one of adjustment and adaptability rather than one of substitution.

The course in natural sciences should be so arranged and so taught that the child's own environment and the occupations of the people in his own vicinity should, as much as possible, become subjects for illustration and example. Any science taught as an applied science should bear upon the industries of the people who support the school. No high-school course should be so intensely agricultural, either in studies or exercises, that it leads to the formation of a caste. It should be reasonably liberal rather than technical.

The kind of agricultural instruction that shall be given.—The high school agricultural course occupies a middle position between the incidental agricultural exercises of the elementary school and the purely technical courses in the agricultural college. Since agricultural work is, in the main, scientific, a foundation for such a course must be made in the science branches. Soil formation, surface drainage, temperature and its effects upon plant and animal life, and the distribution of animal life are agricultural subjects coming within the scope of physical geography. Capillarity and porosity of soils, film and gravity water, evaporation and mulches are subjects relating to tillage and the methods of cultivation, and come within the field of elementary physics. The setting of the plow to take more or less land, the adjustment of collar, hames, and traces to secure the most advantageous draft, the mechanics of the horse, the manipulation of farm implements, the use of gasoline and steam engines, the creaming of milk, and separating of cream, the churning of butter, osmosis in the stems of plants and evaporation from their leaves, ventilation and color harmony, are all subjects to which some principle of physics may be applied. The study of germination, vitality of seeds, plant food, the effect of environment, heredity, and selection, fertilization, budding, grafting, and the making of outdoor observations in the study of plant ecology only intensify the study of botany. There are a few biological subjects, especially heredity, selection, and the principles involved in breeding, which are much more impressive, and the results of which are more immediately seen if taught by using plants. The principles of plant breeding being practically the same as those of animal breeding, little or no attention at this period of school life need be given to animals beyond the external points of excellence.

The new zoology will treat more or less fully of the economic value of animals and insects as well as of their ecology and type forms. Chemistry as usually taught in small high schools without proper apparatus is of so little value that if a substitution were to be made in the high-school course, zoology should take the place of chemistry. Elementary chemistry alone has so much less to do with the ordinary practice of agriculture than is usually credited to it that, if the elementary work can not be followed by qualitative and quantitative analysis, the time spent on it is worth less than that spent upon any other science study in the high school. The subject of plant nutrition does not, for the mass of farmers, necessitate a knowledge of chemistry, but rather of such studies as physics and the biological sciences. The availability of plant food requires a greater knowledge of methods of tillage and cultivation and of botany than of chemistry.

Such subjects as may seem to require a knowledge of chemistry to be applied on the farm or in the kitchen really require little more than the ability to recognize and consider such chemical characteristics of matter as may appeal to the senses, or the phenomena of certain chemical actions. Determining the presence of albumin in milk, carbon in sugar, starch in food; generating carbonic-acid gas, and knowing its characteristics; understanding the effect of salt upon juices in meats; knowing how to remove grease, fruit, and grass stains and paint or ink from woods and fabrics, are all matters requiring no knowledge of chemical reactions to make them practical. However, it is far better that the teacher who offers such exercises understand enough chemistry to assist pupils in comprehending simple chemical formulas, more or less of the nomenclature of this science, and an occasional reason that comes within the understanding of the class. The subject of elementary chemistry may be taught as a part of an agricultural course, but it is far from being as important as physical geography, botany, zoology, or physics.

Exercises directly related to the mathematical and natural sciences or incidental to the study of them should make up a manual-training course. The making of berry boxes, models of gates, and trays for testing seed corn; graft and bud-setting; grinding tools; rope slicing and knot tying; and planning fields and gardens are exercises more or less closely related to the regular studies. These and similar exercises offer quite as much opportunity for self-expression and cultivating the desire to take the initiative as is offered in any manual-training school. The joy that comes from achievements, and the acquisition of habits of accuracy and manual skill, result quite as much from manual exercises that apply directly to the comfort, convenience, and economy of the farmer and his family as from those exercises best suited to the trades of the city.

The function of an agricultural course is further performed by assisting young men and women to conduct tests and experiments at home, when the

conditions under which the work is being done are those which they need immediately to know most about. In conducting such experiments, soil conditions, artificial drainage, topography, the demand of the markets, and the keeping of the necessary records lead the young student to consider adaptability from the point of view of physical conditions and the demands of the market; the keeping of records obliges the experimenter to be economical and accurate. If, after an agricultural course has been offered, there is no effort made to establish the practice of economy, all that has been offered is of little practical value. The horse or sheep that "eats its head off," or the cow, hog, or fowl that can't "earn its board and keep," are little more than living objects, satisfying a fancy; the planting of seeds whose vitality is low or those that are infected with smut or scab results in losses far beyond the belief of the average farmer. In such farming there is not only the least show of self-expression, initiative, or profitable achievement, but there is utter disregard for accuracy and an actual lack of good judgment and economy.

Not the least important function of high-school work is the creation of a wholesome school atmosphere that will arouse an interest in the beauties and pleasures of rural life; and the teacher of a rural school who neglects an opportunity to spiritualize rural life loses much of the joy that comes from doing good.

The value of an agricultural course or any other course must be measured in terms of citizenship, pleasure, and utility. Any course of industrial education will cultivate the spiritual, moral, and social virtues. This statement is especially true of agricultural education, since it has so much to do with so many of the Creator's laws that are manifested in living things. To know these laws dispels the darkness of ignorance and superstition. Agricultural literature and natural phenomena are interpreted in the new light of scientific truth. Drudgery is elevated to the high plane of work, where cause is sought for the result, or where results may reasonably be expected from known causes; where the production is not of itself a standard of value, but where the efficiency, skillfulness, and joy of the husbandman are the true measures of the value of industrial education. Such courses are conducive to producing enterprising citizens—they see more in the pleasures of life; the lawns, the country road, the little church and the rural school, all show the touch of an aroused interest. Contributions to public organizations are more liberal, especially to the school where there are teachers who know the needs of the farmer and who seek to offer as much for utility as for the enrichment of life.

As to the utilitarian value to be placed on agricultural courses in high schools, many specific results might be mentioned; but, in a limited territory, the writer has especially observed a new interest in the question as to how the productive power of the soil may be maintained, and how an increase in the yield of cereals and fruit can be secured. Work benches, milk testers, and germination outfits are not infrequently found in the same room with the air pump, electrical apparatus, and the microscope.

The attendance at the township and village high school has increased; a new field for education has dignified farm work, and many a country boy and girl now in the elementary grades is looking forward to the work in the high school to prepare for their life work on the farm. A country high school course that is not too intensely agricultural offers quite as much material, if not more, than does any other school to prepare for any calling in life.

The function of industrial courses must be to answer to the call of the millions who labor with both hand and mind in preparing the individual to be an active citizen-artisan; and the measure of their value must, in a degree, be determined by the character of the man and by the product of his hand.

The following paper by F. H. Hall, of Illinois, was presented:

THE FARMERS' INSTITUTE WITH RELATION TO NORMAL SCHOOLS.

On the question of the introduction of agricultural instruction into the common schools, the ayes seem to have it. Just how this may be accomplished, especially in the secondary schools, there is a radical difference of opinion.

One class of educators together with other leaders in making public sentiment, favor the special agricultural high school—one in each Congressional district, or one in each county, or one for each ten counties. Others would make use of the machinery of the schools as they are now organized, somewhat modified as to their curricula and as to the unit of organization.

Says former President Jesse, of Missouri: "We are risking our entire future on the doctrine that the college of agriculture should rest on the public high school and we are going to make the public school agricultural so far as it ought to be agricultural."

Says Dr. Eugene Davenport, of Illinois: "The only great future for the high school is to add vocational work, making the separate technical school unnecessary if not impossible."

Says Supt. E. G. Cooley, of Chicago: "Vocational study will be the backbone of the high school of the future."

"One school with many courses, not many schools with different courses; that is the plan for American secondary education," says Doctor Davenport.

A resolution adopted unanimously by the National Education Association at its recent meeting in Cleveland was to the effect that the desirable modification in the high-school work is differentiated courses of study in the schools as they are, not differentiated high schools.

If instruction in agriculture below the college is to come to the people through the common schools as they now exist, teachers must be provided who know something of the science underlying practical agriculture. If large numbers of pupils who expect to go to the farms are to be given such instruction, then large numbers of teachers must be provided. Hence those of us who agree with President Jesse and Doctor Davenport and Superintendent Cooley and with those who dominate the affairs of the National Education Association, the most important and most efficient organization of educators in the world—those of us who agree with these leaders in educational reform; those of us who would place a school in which something of scientific agriculture is taught, within easy reach of every rural-school pupil, who would enable every prospective farmer to find in the home school that which will appeal to him on the agricultural vocational side, who would give to every student opportunity to prepare in a special manner for life on the farm, or for the agricultural college, and sleep at home every night while he is doing it; those of us who favor this see in the normal school our greatest opportunity.

It is not that we expect to dictate the courses of study in these schools; to determine what shall be included and what omitted, but rather we hope to interest in agriculture those who make these courses of study, interest them especially in preparing rural-school teachers for a pedagogical use of the environment of the pupil in the country. To this end we are holding in Illinois what we call the normal school farmers' institute. We have already held four of these meetings, and shall hold two more before the close of the present institute season.

Our State superintendent of public instruction, Hon. Francis G. Blair, favors the plan. He says: "You may say that I am in favor of holding a farmers' institute at each of the State normal schools. It will be good for the normal schools and good for everybody concerned. The hall can be had free of charge, the students can attend these meetings and catch not a little of the farmers' institute spirit from them."

The presidents of our five State normal schools favor the plan and cooperate most heartily and effectively with the institute officers in arranging programmes and in providing for the comfort and convenience of speakers and listeners. The dean of the college of agriculture and director of the experiment station and the State entomologist favor the plan and offer for speakers and instructors the best talent they can command.

We thus bring not only the prospective teachers but the normal-school teachers themselves in touch with the leaders in research work and in agricultural instruction.

As in the ordinary institutes, the great value does not consist so much in what is taught as in the fact that those who learn become inoculated with the agricultural bacillus. Later the station bulletins and circulars and the bulletins from the United States Department of Agriculture find a place in the schools. I can perhaps best make myself understood by a concrete example.

On October 8 and 9, 1908, a normal school farmers' institute was held in the Eastern Illinois Normal School building at Charleston. This institute was attended by more than 700 people, all of whom could be comfortably seated in the auditorium of the normal school. There were at that institute 340 prospective teachers (normal-school pupils), 100 actual teachers, and 250 others from the town and country.

These people were addressed by Dr. Eugene Davenport, dean of the college of agriculture and director of the experiment station; by Dr. C. G. Hopkins, chief in agronomy at the college and station; by Prof. D. O. Barto, specialist, assigned by the trustees of the university to the work of introducing agriculture into the schools of Illinois; by Prof. J. A. West, assistant State entomologist; by President Lord, of the normal school; and by others.

It was an inspiring sight—340 young men and women, pencil in hand, noting the salient points in the addresses of Doctor Davenport on How to Improve the Country Schools, or of Doctor Hopkins on Soil Fertility, or of Professor Barto on Agriculture in the Schools, or of Professor West on Insect Pests of the Cornfield—prospective teachers in the public schools in touch with the leaders in agricultural education!

Who can measure the outcome of this institute? Each of nearly 300 students going back to the farm on Friday night (seven-eighths of these pupils are from the country) to tell the story of the white grub and of the nitrogen-fixing bacteria to father, mother, and the younger children! Each of 340 students and the fathers and brothers of many of these from this time forth will have one eye at least on the agricultural college and the experiment station! And later each of 340 young men and women in a teacher's desk in some one of the thirty counties represented at the normal school carrying into the common schools some of the knowledge and inspiration that is sure to come from such a meeting! And not that knowledge alone, but a hundred times as much that this timely inoculation will lead them to secure!

We shall sometime learn that the work of the institute is not mainly to furnish knowledge, but to furnish the knowledge-gathering, the knowledge-fixing bacteria; and nowhere will such inoculation be more effective and far-reaching than in the deep, warm, virgin soil of the normal school.

One of the most encouraging results of the Charleston institute was that it brought together a larger number of farmers than usually attended the Coles County institute, and that these "practical" men voted unanimously to accept President Lord's invitation and hold the next annual institute at the normal school.

The advantages of the normal school farmers' institute may be enumerated as follows:

(1) It brings prospective teachers for a little time at least into the very best, the most wholesome, and invigorating agricultural atmosphere.

(2) It brings the normal-school teachers and, usually, the rural-school teachers in the vicinity of the normal school into the same atmosphere.

Both classes will be benefited by this. It will help them to keep their feet on the solid ground of educating for doing useful things.

(3) It brings the farmers face to face with the teachers of their children; yes, and with the teachers of the teachers, and all in the presence of the leaders in that for which the institute stands—the dissemination of agricultural truth.

(4) It gives the farmers opportunity to make known their wishes and to commit themselves as advocates of improved rural schools.

(5) It gives the normal-school instructors opportunity, too, to commit themselves as standing for such educational reform as recognizes as the highest and best in education that which trains for efficiency in useful activity.

In conclusion I have one suggestion in regard to the normal-school curriculum. I make this with confidence, since it is based upon what is actually being done in one of the Illinois State normals.

Including those in attendance at the summer sessions of this particular normal school, only one-ninth of those enrolled during the year are ever numbered among the graduates. Those who graduate for the most part go to the city and the village schools. The greater number of those who do not graduate go to the rural schools. Hence the suggestion that great emphasis should be put upon agricultural studies at the summer sessions and during the first year of the regular normal-school work.

F. L. Stevens, of North Carolina, presented the following paper:

THE FARMERS' INSTITUTE WITH RELATION TO AGRICULTURAL HIGH SCHOOLS.

I beg to open the discussion of this subject with the familiar statement that we are discussing a condition and not a theory. The agricultural high school exists. It has existed in the Old World for many years and for several years in the United States. Many States have vigorously undertaken its promotion,

and there are to-day 419 schools of high-school rank in the United States giving instruction in agriculture, many of them special, distinctively agricultural high schools. Public sentiment is very rapidly forming in favor of the agricultural high school and its large extension is the logical outcome of present educational conditions. Therefore, to-day still in the period of vigorous healthful infancy of this to-be great educational factor, still in the formative, plastic period of its development, this discusson by a body of people representing one of the greatest influences operating upon the thought and action of the former should be of far-reaching import.

At the outset we assume that the agricultural high school is to be. Our duty is to consider what we as farmers' institute workers can do to properly form public opinion regarding it, to hasten its coming, to increase its maximum usefulness when it comes. To accomplish these things we must act in concert so that the activities of one may not nullify those of another, and therefore we must have reasonably definite ideas ourselves regarding the nature, scope, function, and equipment of the agricultural high school.

Our present public school system, common, high, college, and university, is an outgrowth and evolution from preceding systems. It came to us from an age during which education was for the aristocrat, hence was largely of ornate, esthetic, fashionable content. It passed through a phase when education was for the priest, during which epoch it became heavily tinctured with subjects appertaining to the priesthood. It developed into a system fitted for the learned professions of law and medicine and was correspondingly modified. Since the chief ancient source of knowledge was the ancient languages, and moreover, since both law and theology, and in the earlier periods medicine, too, required constant return to these original sources, Latin and Greek became fixed components of the educational system. This was the system of education slowly evolved through the centuries, and adapted to those who were to follow the learned professions or the life of ease. From this condition, with the advent of the public school and education for all, was derived our present system. The change of needs, historically considered, was sudden. It was an educational cataclysm. Evolution could not keep pace and we find the system that is struggling to survive to-day full of vestigial characters, useless except for toxonomic purposes.

To properly lead the evolution of the agricultural high school, we must first determine its function. One learned educator said to me, "Why, that is simple. It is to teach agriculture." That, however, seems to me to fall far short of the whole truth. For the purpose of analysis we may consider the function of the agricultural high school under two heads: (1) Its duty to the pupil, and (2) its duty to the community.

The first of these is of course paramount, the second incidental, though very important, especially in the earlier history of the agricultural high school.

(1) *Duty to the pupil.*—Hamilton Wright Mabie has defined culture as "the process by which a man comes into possession of his own nature and into real and fruitful relation with the world about him." In this sense the agricultural high school should give culture. We must be broad in our conceptions and stand for the agricultural high school which will develop the whole man and woman in the manner best calculated to fit them for their future lives. It goes without saying that to do this the best of the teachable agriculture and domestic science must be taught and demonstrated. The what, the how, and the why of this needs no discussion in this assemblage. We all know of the vast improvements that are possible in agricultural practice (and please, for brevity, allow me to imply in this term its feminine equivalent, domestic science), of the large mass of discoveries of science made chiefly through the National Department of Agriculture and the experiment stations. It is the duty of the agricultural high schools to employ Doctor Knapp's terse expression, "to deliver these goods to its pupils." But it should do more. It should give as much knowledge and training as is implied in the definition of Doctor Mabie above quoted. Therefore we must retain as many as possible of the most pertinent of the subjects of the high school of to-day whose function is not filled by the newly introduced subjects, and thereby avoid reducing the agricultural high school to a mere trade school. It is impossible to be specific in this regard, because conditions vary in different sections as to the training previously received by the pupils in the lower schools. In no case, however, is there time or need for Greek or Latin, mathematics higher than geometry, and rarely for modern languages except the mother tongue. While there is unquestionably great value in these disci-

plinary subjects, there are many other subjects which furnish useful practical knowledge as well as mere discipline, which not only develop power to reason but power to reason about things concerning which the pupil will in life reason and which will draw him toward life rather than separate him from it.

Perhaps the most important duty which rests with the agricultural high school is to surround the pupil with an agricultural atmosphere. The school will fail of its purpose if it does not live, breathe, think agriculture; if it does not so weave agriculture into its proper organic connection with everything with which it has a real and normal relation. Agriculture must be the one paramount dominating thought of the institution. While history, mathematics, music, debates, and athletics may play their part in rounding out the symmetry of the institution, its main purpose must stand out as clearly as theology in a school for the ministry, law in the law school, or medicine in the medical college. To attain this end, the debates, exhibitions, and contests will often partake of an agricultural character. Text-books will be used which draw more freely and fairly from agricultural subject-matter. The chemistry and biology, while dealing with the fundamentals of those sciences, will illustrate with subjects of practical bearing. In history, the influence of agriculture will not be ignored as it now often is, but the part played by corn, cotton, and tobacco as factors in history making will be given fair hearing. Geography will deal more than now with soil capacities and crops, as well as with political boundaries. Arithmetic will be based more largely on farm matters, and in particular the subjects of balancing rations and mixing fertilizers will be included. The school atmosphere must lead to such a love of agriculture that the students shall desire to talk of it, think it, read it, practice it, improve it. It must build up a pride in agriculture in what it has done and what it will do. It must dignify agriculture by making it worthy of the greatest thought and intellect that can be devoted to it.

The criticism has often been made that our system of public schools is an inverted pyramid, resting on the apex. The high schools are made to fit to the colleges, and the lower schools to the high school, and many people have come to regard the high school as a preparatory school, meaning thereby its aim is to prepare its pupils for college entrance. This has been a pernicious and costly thought. The high school is for the pupil. Its course should be so shaped as to do the most good to the largest number of its pupils. The large majority enter life, not the college, and the high school, agricultural or not, should fit its pupils for the lives that they will lead. The duty of fitting the few—1, 2, or 10 per cent—by special training for college entrance must fall upon the few who are to enjoy the advanced education, or the colleges must adjust their entrance requirements to the existing status. The training of 90 boys who are to go no further than the high school must not be dwarfed or misshapen because of the 10 or less who may perhaps enter college.

In particular is this true of the agricultural high school. It can not aim in both directions. What it offers it must give well and thoroughly, but the choice of subject-matter for the curriculum must not be dominated by the entrance requirements of any college, but must be made entirely subservient to the needs of the farmer's life.

The dual-purpose high school is impossible unless large funds are available to provide elective courses. This point must be fairly recognized and squarely met.

(2) *The duty to the community.*—In addition to fulfilling its primary object toward the pupil, the agricultural high school may serve to a high degree in a secondary field of usefulness, namely, in rendering direct service to those of the community who are beyond school age. Its duties in this respect are manifold and are particularly significant in the early years of the high school, when the school is in its probationary period and needs friends, and when the adults of the community, having never had agricultural training themselves, are in especial need of the aid that the agricultural high school can offer.

I will mention merely a few ways in which the agricultural high school can be of direct benefit to the community.

(1) *Demonstration farming.*—We all know of the principles, methods, and results of demonstration farming under Dr. Seaman A. Knapp. Every agricultural high school is in an especially advantageous position to practice this very thing to the mutual benefit of community and school. The teacher of agriculture, who must be a practical man, will in these demonstrations, and by them, prove to the skeptic, and he is always present, that the schools have

something useful to teach; the teacher, being present nine months at least of the year, can keep closer eye on the demonstration work than is possible under Dr. Knapp's method, and thereby secure even better results. The school will watch the demonstration and partake of the benefits.

(2) Bulletins and circulars can be issued from the school on subjects and practices directly pertinent to conditions of the community, thereby hitting the mark in a much more exact fashion than by the shotgun method of the State experiment station.

(3) Institutes can be held by the school faculty in all of the near-by communities periodically, say monthly; institutes of one day or perhaps a school of a week at a place, giving direct, pertinent, needed, detailed, efficient instruction arising out of the teacher's intimate knowledge of the local needs.

(4) Periodical, continued, systematic aid can be rendered to the rural school teacher in her efforts to teach elementary agriculture in her school. Two of the greatest obstacles, as I see it, to the efficient introduction of agriculture into the elementary schools are, first, the apathy, often open skepticism, or outright opposition, of the farmer; and, second, the diffidence of the teacher, who, because she has not herself been taught agriculture, thinks that she can not teach it to others. She can teach agriculture successfully, as I have seen demonstrated in many instances, and I believe that I have frequently led them to do so in my teachers' institute and summer school work, by calling their attention to the fact that, to teach some agriculture, they need not know all agriculture, and if they can teach to their pupils a few facts or principles that they do not already know, it matters not if the pupil knows a few things and turns about handling a plow or a mule that the teacher does not know.

I wonder, as a matter of fact, if our teachers who have conscientiously and thinkingly studied a good text-book do not know as large a percentage of the knowable, teachable agriculture as that same teacher knows of the knowable, teachable history which she thinks herself amply able to teach. It will be a large, important duty of the agricultural high school to inspire confidence in the rural school-teacher, to hold up her hands in her efforts, and to inspire in the farmers of the community such belief in the new agriculture that they will not only want agriculture in the rural schools, but they will demand it.

(5) The agricultural high school shall foster social, educational meetings, debates, contests, fairs, exhibitions, but always with an agricultural atmosphere, with agriculture held high in the estimate of all, dignified, exalted, with some symbol other than the hayseed as a token of unprogressiveness.

(6) The agricultural high school can in many ways enter into the detail of the farm life of its community; seed can be tested, herds tested, and herd and seed selection practiced; fungicides and insecticides prescribed and mixed; improved breeds recommended, or even purchased; tools recommended, instruction as to their use given; in fact, any or all, at one time or another, of the practical instructions of the school can be given at the homes.

(7) In the course of a few years the agricultural high school will furnish teachers, better trained in agriculture, to meet the demands of the rural schools, and pupils started on the path of agricultural education, imbued with the idea that there is something to be learned about agriculture, that it is a learned profession, will in larger numbers be turned toward our agricultural colleges.

(8) The greatest duty to the community as to the pupil I see in the creation in the community of an atmosphere of agricultural awakening and uplift, the inspiration in the minds of all the thought that agriculture is worthy of extensive and intensive study, that failure in agriculture is due to lack of knowledge and improper methods of procedure, that success here rewards thoughtful, intelligent, persistent effort with surety.

I believe that we, as farmers' institute workers, should exert all of our influence in favor of the agricultural high school, so shaped as to further these ends.

The quality of the school will depend upon its teachers, not upon its location, buildings, farms, or other equipment. Whether agriculture is to take the dominating position will depend upon the principal, the head of the school. The principal must, therefore, be a teacher of one of the agricultural subjects or, in any event, must be wholly in accord with the agricultural idea. The agricultural high school can, therefore, only rarely be joined with full success to the nonagricultural high school. A condition which we must deplore as a partial success only is the introduction of agriculture into the nonagricultural high school, but when this must be done as the only feasible solution possible under

special conditions, every effort should be made to secure to the teacher of some agricultural subject the principalship of the school and thus to dignify agriculture in the school.

It must be recognized by all concerned that to secure a capable teacher of agriculture is difficult. The demands for the properly equipped man are manifold in the experiment stations, the agricultural colleges, and on the farm itself. To secure the proper man, salaries larger than it has been the custom to pay for instructors in other branches must be paid. It will be entirely impossible to secure a practical farm manager, technically educated, who is receiving calls from numerous directions, for the salary that would amply suffice in the more crowded fields, such as languages and mathematics, which, moreover, are not subject to direct competition with the industrial world. We must stand for the superior man at a superior salary to lead the agricultural high school.

The question of material equipment, buildings, farms, tools, stock, I shall not discuss. Individual ideas and individual or local needs are diverse. In some instances farm and stock may be desirable. In most instances I incline to the view that they are an undesirable incumbrance, requiring more care and presenting more difficulties than is commensurate with their value to the school. The surrounding country is available, free or for small hire, for purposes of demonstrating the individual problems without disadvantageous incumbrance.

An intimate relation of mutual helpfulness must obtain between the agricultural high school and the agricultural colleges. The entrance requirements of this college must be suited to the curriculum of the high school, so that all graduates may be encouraged to continue their work. The colleges will be ever ready to aid with lectures, demonstrations, advice. The success of the agricultural high school will lead to popularization of the idea of agricultural education and eventually to a large increase in attendance at the agricultural colleges, increasing the supply of capable agricultural high school teachers, as well as turning more trained men back upon the farms. The farms, however, can not look to the agricultural colleges for their men. They must come, in the main, eventually from the agricultural high schools, and the agricultural colleges will assume a true collegiate status, supplying to the world the more completely and more technically trained teachers and experimenters, for which there will be an ever increasing demand. There can be no conflict between these institutions; each has its definite field and each is indispensable to the other.

I believe the principles that I have enumerated are the leading ones of the agricultural high school. A dominant agricultural atmosphere to enoble and dignify agriculture, to make the pupil realize that agriculture is worth the while, a proper recognition of agriculture in our text-books of history, arithmetic, geography, literature, science; a school curriculum broad enough to give culture but special enough to bear upon the lives of the pupils and adapted to the majority, not to the minority, of the graduates; a competent teacher secured by whatever salary is necessary; a cooperation between the agricultural high school and the agricultural colleges and the normal schools of the State.

We as farmers' institute workers can do much to hasten the coming of this school and much to form public opinion along proper lines regarding it.

On motion the convention adjourned to attend a joint meeting with the Grange, to reconvene at 8 p. m.

Evening Session, Tuesday, November 17, 1908.

The convention was called to order at 8 p. m., the President, Tait Butler, in the chair.

The President. The discussion of the three papers that were read this afternoon is now in order—Rural Public Schools, by Mr. Graham; Normal Schools, by Professor Hall; and Agricultural High Schools, by Doctor Stevens.

Discussion.

C. M. Hanna, of Kentucky. In the State of Kentucky we are endeavoring to secure the benefits of the normal-school work by bringing our institute instructors together at a State meeting in the winter. We get the best talent that we can. These normal schools are an inspiration to our teachers and they go back to their work benefited by their three days' association with these great teachers.

J. H. Worst, of North Dakota. We are trying to introduce the teaching of agriculture into the schools of North Dakota. I can not see how a teacher can be prepared in three or four days to teach agriculture in an effective way, and this is something that I would like to have information upon. We have had an idea that a person to teach agriculture, especially in the secondary schools, should be able to take up the subjects of soil physics, agricultural botany, horticulture, zoology, agronomy, and animal husbandry in order to teach these subjects in an effective way.

B. W. McKeen, of Maine. The instruction of students in the normal schools along agricultural lines is the keynote of the future successful teaching of agriculture. We must not only teach the teacher, but the teachers of the teacher, the elements of agriculture so that they can teach intelligently and thoroughly.

J. H. Connell, of Oklahoma. In Oklahoma we are trying to do all three of the things that are referred to in the papers. We have agriculture in the common schools, agriculture in the normal schools, as well as agriculture in the agricultural and mechanical college. Last July there were 1,200 teachers in the summer normal institutes studying how to teach agriculture and domestic science. This year in the four normal schools of the State the subject of scientific agriculture is being taught regularly as a part of the course. In addition to this a man is employed by the agricultural college who devotes his time to visiting the teachers of the State and to sending them literature with reference to methods of teaching. We call him a professor of agriculture for schools. We have a board of agriculture and industrial education consisting of three men. These three men are the State superintendent of education, the president of the board of agriculture, and the president of the agricultural and mechanical college. They control the educational force of the State, and in this board we think we have the solution of the subject of how to train teachers, because the State of Oklahoma requires by statute that agriculture and domestic science be taught in all of the public schools. We had a law requiring that agriculture be thus taught in our rural schools before we had teachers for the purpose. This law was enacted, not hastily, but after careful deliberation. We reasoned that unless we had the law we would never have the teachers, and that it was better to make a start and provide material for giving instruction later than to wait until the teachers would voluntarily prepare themselves for giving agricultural instruction.

J. H. Miller, of Kansas. The point was made in Mr. Graham's paper that the township high schools and the consolidated schools enabled agriculture to be taught in communities where otherwise this would have been impossible. I am not in favor, however, of the Congressional district agricultural high school. The great body of rural people are not reached by such an institution. Comparatively few can attend it. We have one Congressional district in our State 150 miles by 160 miles. One agricultural school in such a district would be entirely isolated from 90 per cent of the population. The main purpose of the movement for rural betterment which is giving agricultural instruction to the masses would be defeated if agricultural education were to be limited to Congressional district high schools.

As to the normal schools, we are in our State insisting that agriculture must be taught in these schools with a one-year course of instruction. The country teacher is not expected to be a graduate of the agricultural college to teach agriculture any more than she must be a graduate of a medical college to teach physiology. We need to insist that in the normal schools botany, physics,

chemistry, and zoology shall be taught with reference to their application to agriculture.

D. W. Working, of West Virginia. In West Virginia the legislature has provided that agriculture must be taught in the rural schools. The teachers therefore must get ready for giving this instruction. The agricultural college has taken hold of the question of the preparation of teachers for giving agricultural instruction in the rural schools, and last year in the summer school at the college courses in agriculture were given to the teachers who attended.

L. R. Taft, of Michigan. In Michigan we have four normal schools with 3,000 pupils preparing to teach, but they can only turn out enough teachers for the city and village schools, leaving the rural schools without any provision. In order to supply teachers for rural-school work, we have 40 county normal schools supported jointly by the State and county. The teachers in these normals are expected to go to the college for the summer conference and thus prepare themselves to teach the teachers for the rural schools.

F. H. Hall, of Illinois. There is a work that we can all do if we secure the cooperation of the county superintendents of schools. In the teachers' institutes, one of which is held in every county in the State, more than half of the county superintendents employ a teacher of the teachers who is capable of giving instruction in some agricultural topic.

J. H. Worst. What will be the final preparation that you will demand of the teacher to teach agriculture as effectively as you would mathematics? Will you have a standard?

F. H. Hall. I think there would be a standard to be gradually raised. Perhaps some time we can expect a year's instruction, but we can not do that now. We have 28,000 teachers in Illinois and the normal schools can only turn out 300 or 400 graduates each year.

J. H. Connell. The standard has been fixed for Oklahoma.

D. W. Working. In West Virginia we will attempt next year in our summer school of six weeks at the college to give the teachers a course in some one subject related to agriculture that will enable them to carry through a year's instruction in the schools, so that they will have an outline for one year's work at least.

The following paper was presented by J. H. Connell, of Oklahoma:

THE FARMERS' INSTITUTE WITH RELATION TO THE AGRICULTURAL JOURNALS.

Before attempting to speak to you with regard to agricultural journals, I would explain why I have a right to say anything on this question. Twenty years ago, December, 1888, I did my first farmers' institute work as a lecturer in the town of Shelbyville, Ky., and at that institute the "gentleman from Kentucky," with us on this occasion, presided as president. Since that time I have done work annually in farmers' institutes in a number of States, and while I have been connected with agricultural colleges during the greater part of that time, I have constantly had the work of the farmers' institute on my mind and on my hands. For six years, and until recently, I have been editor-in-chief of an agricultural paper, though now I have no connection with any journal further than the most of you have; but it is a pleasure for me to look back and see men who have grown younger instead of older in the cause, like our worthy president, Tait Butler, and the jolly Jimmie Creelman, who were associated with me in the long ago. I wish further to explain that probably no man among you is more interested in the farmers' institute work than the speaker, for all of the agricultural forces of Oklahoma are founded on the farmers' institute. In order to make that plain to you, I would refer to a meeting of the delegates from the county farmers' institute, one delegate from each county, held on the grounds of the agricultural and mechanical college in

Oklahoma last August, a meeting in which ten members of the State board of agriculture—the total membership of that board, with the exception of the president—ten members were elected by the delegates from farmers' institutes and elected from their own number.

Our board of agriculture is, by constitutional provision, the board of regents of the agricultural and mechanical college, so that whatever the board of agriculture says shall be done with reference to the agricultural and mechanical college and the experiment station must be done. All the work of the farmers' institutes in Oklahoma falls under the authority of the State board of agriculture, as does the inspection of fertilizers, nurseries, and the control of the pure-food law in that State. But all of it is related to the county farmers' institute, and when the county farmers' institute fails in our State the whole fabric fails, so far as agricultural education and agricultural welfare is concerned. Therefore, we have seen fit to bring a number of people to Washington on this occasion. There are several members of the board of agriculture and the superintendent of farmers' institutes who have come up from Oklahoma to meet with you, and we desire to meet with you annually from this time forward, for we fear we can not live without you, however well you have succeeded without our assistance.

The agricultural journals constitute a new country and new territory for farmers' institute workers to conquer, for, while I am familiar with nearly all of the agricultural journals of the United States, knowing them by sight as probably many of you know scores of them, if you look through them carefully it is only occasionally that you see reference to farmers' institute work. There are but few exceptions. Now, in my own experience in the Southwest I have had opportunity, indeed I have been forced, to use the agricultural journal as a medium of communication with the people; not one agricultural journal, but many agricultural journals. Out of their use there has grown up in the Southwest a demand for a higher system of agriculture as strong and virile in every particular as can be found anywhere in the United States. No farmers' institute appointment that is made anywhere in the Southwest falls to the ground for lack of interest, because of the fact that the general press, following the lead of the agricultural press, has been aroused until the most popular thing offered for publication in an agricultural paper or in a daily paper, the most popular matter that can be presented to the managing editor of any journal of the Southwest is something relating to agricultural meetings. Farmers' meetings are exploited as much as any other question, even political gatherings and State bankers' associations. This means that helpful sentiment has been created by reason of indirect advertising through these journals.

Secretary Wilson intimated yesterday that the work of the farmers' institute reached approximately 2,000,000 people in this country annually. That is about 4 per cent of the people living on the farms. It was stated here to-day that a man who had facts for farmers from an experiment station and failed to get these facts to the farmer for examination was a failure as an experiment-station man. Adopting the same rule, I want to ask with reference to our work as farmers' institute teachers, and I include myself as one, how much of a failure are we if, having facts, we reach only 4 per cent of the people concerned?

I would invite your attention to this wonderful agency now at the disposal of every State farmers' institute in America to-day—the agricultural press. Nearly 500 agricultural papers are published weekly, semiweekly, semimonthly, and monthly in the United States. Make a few simple figures, and instead of counting 500, take 100 and assume that the substance of one farmers' institute lecture goes into them once. They will average easily 20,000 circulation per paper; 20,000 times 100 is 2,000,000 people reached with that one lecture. I was talking to Prof. W. J. Kennedy, at Ames, Iowa, a few days since, and he told me he was using 90 papers in this country, so that the estimate of 100 is not excessive. But this is not all. If we reach 2,000,000 people with the 100 papers published, we may not only reach them with one lecture, but the same door open to us once will be open to us again and again, and we can easily reach them with the substance of five lectures during the year. If we multiply the 2,000,000 people by the factor 5, we get 10,000,000 lectures delivered. Their substance has been conveyed into the homes of the people, and you did not have a single reader in millions of these homes before. I invite your attention to the fact that you will have two, three, or four readers in that home. But assuming that you have only two, multiply by the factor 2, and you have

twenty lectures delivered to the individual reader. Would not the publication of material of this character systematically throughout the United States increase the attendance and consequently the interest in our institute work? Would it not prepare the minds of the people for the work which we are attempting to do and which, while it has been appreciated by those who come, has been unappreciated by those who do not think it worth while to come? Would it not be safe to say that if we systematically pursued such a system of publicity that we would double the attendance of the farmers' institutes and the number of those who come within earshot of the speaker? There is nothing that surpasses the living speaker as a great teacher, but that drop of ink which makes millions think must be used in the farmers' institute movement if we are to cause the people who need assistance most to come within hearing of the voice of the farmers' institute lecturer. Lecturers, knowing that they are to be reported in the press, are infused with new life because of the consciousness that they are talking to a larger audience than they see before them.

It is a good wife at home who reads the agricultural journal and reads it almost religiously. The ladies here to-day were talking about the influence of a wife in the home. I know her influences; she is the reader of the family in nine out of ten cases. She is the student of the family, and when she sits and pores over the pages of the agricultural journal there is little in it that escapes her keen eye, and the result is that she influences that home life and the home atmosphere from the standpoint of what she has read. It is a comparatively simple matter to place this information—these facts concerning the farmers' institute work—systematically in the pages of the agricultural journal, both before the institutes are held and after; before by way of announcement, and afterwards by way of report. In Oklahoma we to-day are sending out to the papers small cuts of the faces of the lecturers who appear in the farmers' institutes. We are sending out pictures of interest to the reading public to catch attention in order that the institutes may not escape notice. The picture catches the eye. A picture of some scene on the ground of the agricultural and mechanical college or in the rooms of the college, the girls at their cooking class, or the boys at some phase of their work in live-stock judging. The average reader does not know the difference between the farmers' institute and the State board of agriculture. To him they are all one and the same. He has merely a vague impression of a new agricultural system, so that we present these things in such a manner as to secure his attention, and follow with carefully printed notices in order to get the desired publicity. Brief synopses of some of the lectures are furnished, so that when the people come they may know very nearly the line of thought that is to be presented.

After the institute is over we try to present something of local interest to the people of the community in the press as evidence that we have been there—if possible to get a photograph of something in that community, it will be advantageous to spend $1.50 to $3 for a cut and run it in some paper and send these papers to that community. It notices them and their community in a way that they like, and they will give you the welcome when you come again. In addition to that, it is an easy matter merely to sketch some of the most interesting lectures without giving details, without filling column after column; just merely touch upon some of the salient points of the lecture. I remember one case in Texas of the brief sketch of a lecture delivered by a man who was a swine breeder, in which he explained to an audience his peculiar method of grazing fall-sown wheat profitably. That single item sent out through one paper gained currency by hundreds of thousands of statements when republished through other papers. You can not stop the spread of information when once you have started it, and it becomes most convincing in its influence.

With reference to improving agricultural papers: Improvement is possible at all times, and I think by way of suggestion that it would be well for every agricultural journal of importance in the United States to establish in its columns a department of education, and let it be agricultural education in the literal sense—every phase of education that might interest a farmer or a farmer's boy. You say the average editor of an agricultural journal would not know how to fill up such a column. You show him how. It will be money well expended upon the part of these institutes to pay an agricultural editor to give publicity to the right kind of work that the institutes are doing, because after twenty years' connection with them I want to say to you that in the average State the work of the agricultural and mechanical college, the experi-

ment station, and the farmers' institutes all fall to the ground for lack of publicity. I believe that this matter of education should be taken up by the press, as well as by the agricultural colleges and experiment stations.

Farmers' institute workers should not be afraid to advise the farmers who come to hear them that certain publications are reliable. Why should not the names of the agricultural papers most worthy in the United States be noticed by the institute lecturers in the same way as the station bulletins are noticed, or the agricultural and mechanical college literature and publications of the United States Department of Agriculture? Usually these journals only cost from $1 to $2 per year. The price is nominal; in fact, the cost of the paper is not paid for by the subscriber. The white paper costs more than the subscription price, to say nothing of the postage, the printing, and the editorial work. If we lend our support to these agencies we will find in them very helpful agencies, indeed. I need only to remind you of the time a few years ago when it was decided that a 10 cent additional tax should be levied on oleomargarine that the agricultural press of this country lent its voice so thoroughly to that matter that Congress heard them, and the tax was levied, very much to the benefit of the dairy interests of some of our States. I say that the agricultural papers are loyal, and that they have loyal followers, men and women who read them searchingly and with full confidence, believing that they are issued in the interests of the farming people. In this connection, permit me to say that the journals and their editors are probably better prepared to render service to the cause of farmers' institutes than any other agency in the United States to-day, the National Department of Agriculture excepted, because their testimony is disinterested, and they understand the attitude of public thought concerning agriculture. They fight that fight every week. Furthermore, some of them know the history of education, and they understand that the education of to-day is in direct opposition to the wise teachings of the men of several centuries ago, who attempted to establish an education that would be adapted to the needs of the common people.

My suggestion is, that you get close to your agricultural papers in the several States. Every State has one or more that is worthy of confidence, and they will be sure to lend you a willing ear if you will study how to cooperate with them. Do not send them the same matter by the same mail that you send to the daily papers, expecting that they will use it. They will not, for the reason that the daily paper goes to press in a few hours and "scoops" the item. The agricultural paper can not be issued at once, because it is a weekly or a semiweekly, and old items of news must be omitted. As a result of these conditions you may feel that the one paper has honored the item and the other has slighted it. The fact is, you do not give the weekly journal a living chance. It is necessary always to bear in mind the date of publication. Many a man serving with the farmers' institute or the agricultural college has been offended by reason of the fact that the agricultural paper threw his communication into the waste-paper basket without showing it any consideration, whereas the truth is, the editor received it on one day and the next morning he read the same in the daily paper; consequently it was "dead," so far as his columns were concerned.

Discussion.

F. H. Hall, of Illinois. Something over a year ago the farmers' institute board of Illinois set aside $1,000 to be used precisely as President Connell has indicated. We hired the best man we could find for this work; one who has had more experience in writing agricultural matter for the press than any other man we knew of in the State. We agreed to give him so much per column for the work. He prepares the articles and sends them to our secretary. We expended $300 or $400 in a duplicating machine. The copy prepared goes to 560 papers on the same day—to every agricultural journal in the State and other papers making up the 560. This is done every week, and sometimes two or three times a week. We are doing, therefore, precisely what Mr. Connell suggests, except that we are not holding back the information from the daily papers. We do not feel that it is very important which papers publish it. We rejoice in the fact that many of our daily papers help us. They find it to their ad-

vantage to print it, for they recognize the fact that it is valuable and in harmony with what is done in our school of agriculture and at the experiment station. We expended $1,000 the past year in addition to the cost of the equipment in carrying on this publicity work.

W. L. Amoss, of Maryland. In Maryland we have tried reporting for the press in every way that has been suggested. We have had men employed especially to do that work. We have used stenographers to report each lecture. We have put some member of our force, and have paid him extra money, to prepare a report of each meeting or a report of each week's meetings, and have come to the conclusion that if the work is worth reporting the newspaper reporter should come in and take it himself.

The following paper was presented by Alva Agee, of Pennsylvania:

THE FARMERS' INSTITUTE WITH RELATION TO AGRICULTURAL FAIR ASSOCIATIONS.

Our secretary has assigned me the above subject, and has divided it under three heads. (1) Their organization and management in the interest of agriculture; (2) securing the patronage of the agricultural public; and (3) their development in every county.

This places the whole matter before us in an orderly way, and my only handicap is my inability to solve the problem presented. However, much discussion in this world does not look forward to practical solution, and I only join the great majority when I add to such discussion.

There are difficulties and they are large. If fairs were educational in character and retained the popularity they now possess, there would be no question about establishing relations between them and such an educational institution as the farmers' institute. The fair that interests us in this discussion is not and State fair, which has become a great exposition and an established educational institution, but the local concern, known usually in the States as the county fair. In order to get started upon my subject, I remark:

The people of America demand amusement. A walk along the streets of our big cities, or towns, or villages in the evening shows that the caterer to the demand for amusement is doing a big business. Entertainment of a sort that does not require much mental exertion is craved. The public in general does not desire instruction when amusement is at hand. The seven-year-old boy who tried school for a few days and then told his mother that he proposed to quit because school took too much of his time, is father of the man when the heart is searched. The public studies some, bracing itself for mental strain, only for the sake of the loaves and the fishes. The novel is preferred to actual history, the play to the scientific lecture, and the story-telling lecturer to the serious teacher. I speak now of the masses—the people who support public institutions—and not of the select few who prefer school to fishing and work to play. The country offers fewer opportunities for amusement than the towns and cities, and it was the natural thing that the county agricultural fair should have been seized upon as a means for relaxation. It may have been educational at one time, and its outward appearance has been retained, but a study of the faces of the people on fair grounds will show in most localities a people bent upon a holiday and not upon a day of study. The seizure of the county fair as an attraction for amusement-loving people has drawn all amusement lovers and has debarred some who want instruction. More than this, for the day it has converted some pretty good people into rather irresponsible holiday makers. There is always a considerable percentage of the public that wants clean-cut instruction.

I have studied the county fair from the standpoint of the exhibitor. Each year our Pennsylvania School of Agriculture and Experiment Station places exhibits at various county fairs. We recently closed our fall work, having participated in fairs of eleven counties. Our exhibit is purely educational. It is not a producer's exhibit, seeking to show something that will sell, but it carries to the public in an attractive way the results of station experiments. The counties gladly pay us $50 each for making the exhibit, and we have more invitations than we can accept. I have gone upon fair grounds, watching the

dense crowds around the gambling booths and the shows that promise oriental indecencies, and it would then seem that our educational exhibit had been sent into the wrong county; but when I reached our exhibit I found that thousands observed our work with interest, and that hundreds stopped to ask practical farm questions and to get helpful information. Then I knew that the amusement lovers were not all of the public. Our educational exhibit at county fairs is doing our college and station a great good, and this could not be so if a large number of fair goers did not welcome a purely educational feature.

In the redemption of the county fair it is necessary to oppose three classes: (1) The people who make money catering to the base passions; (2) the people who want a day of unusual license, and lack the nerve to take it except in the guise of something so respectable as agriculture; and (3) the people who do not believe that a fair will have profitable attendance unless it is run "wide open."

The first class should be dealt with according to law. For the sake of decency and the reputation of agriculture, there should be no greater license inside the fair grounds than outside.

The second class will attend an educational fair and support it when leaders with higher ideals provide the fair. It is very much as it is with the church. A certain element in it will attend the services and profit greatly thereby, even when they may rather gladly welcome an occasional announcement that no services will be held for some good reason. They are capable of being led by superior people for their own good.

The third class needs the demonstration of an attraction possible to the educational fair. There must be attractiveness. If we could abandon the old idea of an exhibit of abnormal objects and in its stead have that of an exhibit that taught a lesson, a fair based upon such a plan would draw people.

Let me offer one or two illustrations. The McCormick estate of Harrisburg owns a very large number of farms in the Cumberland Valley. These farms are let to capable men who remain as tenants for a long term of years. One day each year is given to an exhibit of the skill of these tenant farmers and their neighbors within the general area occupied by the McCormick farms. No cash prizes are offered, and there is an admission fee of 10 cents to cover all expenses. Last summer there were thousands of people in attendance upon this educational fair, at which the various producers engaged in friendly rivalry in exhibits of the results of their skill. Competent persons say that they have noted a great uplift in the agriculture of the section, and it must be due in part at least to the inspiration and the education that these people get from their annual fair.

Our Pennsylvania State College recently offered its campus for a local horse show, confining exhibits to a radius of 15 miles. It was an experiment. No cash prizes were offered, and the show could be only educational and inspirational. One hundred and eight entries were made in fourteen classes, and hundreds of visitors spent the day from 10 o'clock in the morning until 5 o'clock in the afternoon enjoying the exhibit and watching the placing of the ribbons by a competent judge.

We have in this country a multitude of people who want an exhibit that teaches a lesson, and we have a still greater multitude who would attend and enjoy the lesson if there were no counter attractions of the vaudeville class.

Let me describe a few features of our exhibit at Pennsylvania county fairs that get their fair share of public attention amidst the usual competition with the attractions of showmen and gamblers.

(1) Ten boxes of soil from plats of land that have had fixed kind of fertilizers for a long period of time. The growing plants indicate the degree of friendliness of each soil to clover and grass. (2) Specimens of the various legumes prominently labeled. Farmers want to know about them. (3) Specimens of the various carriers of fertilizers and of lime. (4) Glass tubes so filled with grain as to indicate relative yields per acre of various varieties. (5) Typical specimens of varieties of various cereals and vegetables. (6) Means of controlling soil moisture. (7) Specimens of insect and fungus foes of fruit, grain, and vegetables. (8) Modern dairy supplies.

In the introduction of these features we copied largely from the Ohio Station, which has shown leadership in arranging educational exhibits. One attractive feature in Ohio is an exhibit in forestry, showing the actual annual growth of various varieties of timber. The latest addition is a light road wagon made of catalpa wood.

The ordinary exhibitor may not compete with a State institution in number of attractive features, but I have described an attractive station exhibit to show that the people can find interest in that which is educational. Other exhibitors should take their cue from these and some do so. Wide-awake manufacturers make demonstrations. The people want to know how and why a thing works. They like action; that is the chief enticement of the race track, and a reason why the race track gets the people.

I know a great many people who would buy tickets for themselves and family to a fair whose management would do the following things:

(1) Throw out every gambling device and cease making the grounds a menace to the morals of the country youth; (2) throw out every show that causes a boy or man to part with his money in the expectation of seeing a lewd or suggestive spectacle; (3) throw out all other kinds of side shows, because they do not belong to an agricultural fair; (4) get action into agricultural exhibits, so that less action is needed on the race track; (5) offer prizes for specimens of crops that paid a profit to the producer, each specimen to be from a crop whose yield is stated on a placard, requiring that the exhibitor tell how he produced it; (6) offer liberal prizes for results of various country school endeavors—class-room work, field excursions for specimens and gardening—as people are interested in the work of children; (7) offer prizes for best results obtained in farming by boys and girls on their parents' farms; (8) have lectures delivered by phonographs placed in connection with exhibits of special interest; (9) have an audience room devoted to lectures illustrated with lantern slides.

A few nonagricultural attractions need not be debarred, if they are in some sense educational or inspirational, but they should be open to the view of everyone who pays the admission fee to the fair at the gate. One of the very highest grade fairs in this country does not hesitate to have one such attraction each year, making use of an airship, and there is always an uplift in that if the machinery works.

That is a fair many of us want, but it will take time to get it. We must see the possibilities and work for it, and we must let the vaudeville element in our population learn to go elsewhere for its amusements. I do not believe that the improvement can come by conversion of all the present fair management. It is waste of time to try to convert some people. It will be easier in many communities to start anew with another organization. The State should help with liberal appropriations to an association in a county that meets certain strict requirements. It can help with State exhibits, and a new kind of fair can be brought into existence and the old sort can live by its side or die, just as the people see fit to will it.

The farmers' institute is an educator. It should be concerned with the good of the country's agriculture. It attracts to its meeting the natural leaders. It is in its very nature an instrument of propaganda. It is not so constituted in the States that it could take over the business of fair management with success in most counties, but it could lead the farming public to demand a purely educational and inspirational agricultural fair and to join in a movement for legislation that would foster it.

Discussion.

G. A. Gigault, of Quebec. In the Province of Quebec we have in every county at least one agricultural society which can promote improvement in agriculture: (1) By holding exhibitions; (2) by holding meetings for discussion and for hearing lectures on subjects connected with the theory and practice of improved husbandry; (3) by promoting the circulation of agricultural papers; (4) by offering prizes for essays on questions of theoretical or practical agriculture; (5) by importing or otherwise procuring animals of superior breeds, new varieties of plants and grains, and seeds of the best kinds; and (6) by organizing plowing matches, and competitions respecting standing crops and the best-managed farms.

Exhibitions are very popular and most of the county agricultural societies expend all their funds only for that purpose, neglecting other competitions and

the purchase and maintenance of animals of superior breeds. In a few counties no exhibitions are held for one year, and the whole revenue and grant of that year is devoted by the society for the purchase of pure-bred live stock or to the organization of competitions respecting standing crops or best-managed farms.

The partisans of annual fall exhibitions in every county contend that they are a necessity and that the farmers must meet at least once a year on the fair grounds in order to enjoy and amuse themselves. I admit the usefulness of exhibitions; they may be held annually, but they should not absorb all the funds of the society and all the grants given for the promotion of agriculture in a county. If the exhibitions promote the interests of agriculture, there are other things still more useful to the agricultural class. We must encourage fairs, but not to the prejudice and detriment of other organizations indispensable for the development of our agricultural resources. In granting aid to fairs we must not go so far as to neglect the circulation of agricultural papers, competitions respecting standing crops and the best-managed farms, the purchase and maintenance of pure-bred live stock, seed fairs, and spring bull and stallion shows. The grant to agricultural societies should be proportioned to their usefulness and should be given for certain specified purposes. To a society holding an exhibition the grant should be less than to a society holding not only an exhibition but also other competitions, or encouraging the purchase and maintenance of pure-bred live stock.

The Ontario law respecting agricultural societies has followed that principle to a certain extent. According to that legislation the maximum of the grant to a county society is $800. Out of that sum special grants are paid for spring seed fairs, spring stallion or bull shows, or for the purchase or maintenance of pure-bred stock.

It should be the duty of agricultural societies to encourage, above all, the land improvements which are the source of all other improvements. In a report made in 1898, in the name of the agricultural societies of Belgium to the International Agricultural Congress of Paris, we find the following remark: "The superiority of competitions respecting farms, compared to exhibitions, is well established."

Some partisans of exhibitions, and chiefly hotel keepers, think that grants for fairs are never high enough. They would take for exhibitions all the agricultural appropriations destined to a county. What they want is to attract large crowds to exhibitions, whether agriculture profits thereby or not.

When the Council of Agriculture of Quebec adopted a by-law to compel agricultural societies to encourage, out of their grants, the circulation of an agricultural paper, many partisans of fairs protested against that by-law because it reduced the amount spent on fairs, but to-day the farmers are satisfied. Since that by-law has been adopted the number of subscribers to the Journal of Agriculture has increased more than 60,000.

In many cases, fairs are not managed as they should be. Treating the subject which occupies now our attention, C. D. Smith, director of the experiment station of the State of Michigan, made the following declaration: "For the most part the county fairs are degenerating into horse races." That is not the purpose for which agricultural societies were organized.

Grants should be given by the State so as to secure the realization of the ideal for which societies are established. They may have annual exhibitions, but they should also encourage: (1) Competitions respecting standing crops and the best-managed farms; and (2) seed fairs, spring bull and stallion shows, as well as the circulation of good agricultural papers. They should also give

high premiums to owners of first-class animals, subject to the condition that such live stock shall be kept in the county for a year or two. In Belgium premiums as high as $1,000 for one animal are given to owners of the best stallions. That policy has produced most satisfactory results, and to-day Belgium exports horses every year for many millions of dollars.

ELECTION OF OFFICERS.

A nominating committee, consisting of E. A. Burnett, of Nebraska, George A. Putnam, of Ontario, and E. R. Lloyd, of Mississippi, nominated, and the convention elected, officers of the association for the ensuing year as given on page 6.

Those who presented papers and reports were formally thanked by vote of the convention.

On motion the convention adjourned sine die.

FIVE-MINUTE REPORTS FROM THE CANADIAN PROVINCES.[a]

Alberta. By H. A. Craig, Edmonton.

A new feature inaugurated by the department last season was a traveling grain-judging school. Two coaches were secured from the railway company; a large cane-seated day coach, with a seating capacity of about 100, was used as a class room. The other was a Pullman, and was used for sleeping quarters for the staff, and also as a class room in the case of an overflow meeting. The coaches were moved on both the freight and passenger trains. All the lines of railway in the province were covered, and a stop of one day made at the regular stations. The object of the schools was to furnish information respecting the growing of wheat, oats, barley, and grasses, and the destruction of weeds. Samples of grains, grasses, and weeds were carried and used for demonstration purposes.

Ontario. By Geo. A. Putnam, Toronto.

As will be seen from the statistical statement (pp. 71, 72), the regular institutes in Ontario have been carried on to about the same extent and with about the usual attendance as during the past few years. There has, however, been considerably greater interest in special institutes or short courses in definite lines of work. Chief among these special institutes were those in the interests of fruit production. In all, 17 such courses were arranged for, with a total attendance of considerably over 7,000. From all localities where such work was carried on come reports that the classes were much appreciated and resulted in much benefit to the fruit growers of the district. The indications are that a greater number of places will ask for similar work during the coming season. Already several of these courses have been planned for.

The method of procedure was to arrange a definite programme and to get specialists to take up such lines of work as were considered by the fruit men of the district to be of greatest importance. In all instances it was the aim of those in charge of the course to bring out discussions and to apply the information given to local conditions and requirements.

A few special poultry and vegetable institutes were held, and speakers were sent to nearly 400 annual meetings of cheese factories.

A beginning was made in a small way toward establishing local farmers' institute clubs. Some 60 of these were established last winter, and about 40 of them carried on effective work. Every indication points to a great increase in this line of work during the coming season.

The women's institute branch of the farmers' institute organization can hardly be called a branch any longer, as the membership now reaches over 12,200, and the total attendance at the meetings during the past year was over 99,000. We now have organizations in 89 electoral districts, with separate

[a] Reports on the institute work in the United States are not given here, because the more important data regarding this work are embodied in the annual report of the Farmers' Institute Specialist of the Office of Experiment Stations and in the statistical summary on pages 71, 72.

institutes at 465 points; 412 of these have complied with the conditions upon which grants are given them. Many of those which did not receive grants are new organizations and will, no doubt, next year be entitled to the usual grant.

We fully believe that women's institutes have come to remain in Ontario, and the time is not far distant when we shall have organizations in every section of the province. Even with the large membership and great number of branches already established, there are a number of other sections in which the people are showing a desire for organization.

A gratifying feature of this work is that those who have been longest connected with it are most enthusiastic, and are much impressed with the possibilities of doing a real service to the home makers of the province through their organization.

Saskatchewan. By John Bracken, Regina.

The farmers' institute work in the province of Saskatchewan has been conducted along very similar lines to that of a year ago. We have, however, made a special endeavor to reach the people at a distance from railway points by holding one-day meetings in the rural schools. We find that while these meetings are smaller the interest is much greater and the results much more satisfactory.

More attention has been given to the matter of normal institutes. We believe the development and training of capable institute speakers is of primary importance in a new country. Consequently, advantage was taken of as many as possible of the large gatherings of agriculturists to get the speakers together for discussions on the various problems with which we have to cope.

REPORT OF THE EXECUTIVE COMMITTEE, 1907–8.

The executive committee met immediately upon the adjournment of the association October 24, 1907, and organized by the election of G. A. Putnam of Toronto, Ontario, chairman. In conformity with the new by-law adopted by the association, which provides that the "members of the standing committees shall be appointed one for one year, one for two years, and one for three years, and as their terms expire the subsequent appointment shall be for three years; and that the member whose term first expires shall be chairman of the committee, the following appointments were made for the several standing committees:

Institute organization and methods: A. M. Soule, Athens, Ga., chairman, term expiring 1908; G. A. Putnam, Toronto, Ontario, term expiring 1909; and J. D. Tinsley, Agricultural College, N. Mex., term expiring 1910.

Institute lecturers: T. L. Calvert, Columbus, Ohio, chairman, term expiring 1908; E. R. Lloyd, Agricultural College, Miss., term expiring 1909; and T. A. Hoverstad, Fargo, N. Dak., term expiring 1910.

Cooperation with other educational agencies: G. C. Creelman, Guelph, Ontario, chairman, term expiring 1908; K. L. Butterfield, Amherst, Mass., term expiring 1909; and George McKerrow, Madison, Wis., term expiring 1910.

Movable schools of agriculture: L. R. Taft, Agricultural College, Mich., chairman, term expiring 1908; J. Bracken, Regina, Canada, term expiring 1909; and Alva Agee, State College, Pa., term expiring 1910.

Boys and girls' institutes: F. H. Rankin, Urbana, Ill., chairman, term expiring 1908; Val Keyser, Lincoln, Nebr., term expiring 1909; and A. E. Chamberlain, Brookings, S. Dak., term expiring 1910.

Women's institutes: Mrs. Adda F. Howie, Elmgrove, Wis., chairman, term expiring 1908; Dr. A. Backus, Aylmer, Ontario, term expiring 1909; and Mrs. F. L. Stevens, Raleigh, N. C., term expiring 1910.

This was the only regular meeting of the committee during the year. The individual members, however, were consulted with respect to the time and place of the next annual meeting of the association, and it was determined that the meeting should be at Washington, D. C., immediately prior to the meeting of the Association of American Agricultural Colleges and Experiment Stations, November 16 and 17. A tentative programme of that meeting was made out by the secretary and forwarded to the members of the committee for such suggestions as they might desire to offer.

Six thousand notices of the time and place of the annual meeting were printed and distributed, and 3,000 copies of the programme for the meeting were printed and supplied to State and provincial directors, the list of lecturers,

and to about 500 agricultural newspapers. The report of the proceedings of the Washington meeting was prepared immediately after its adjournment, but owing to delays that were unavoidable was not received from the printer until April 9, 1908. Five thousand copies of this report were published and distributed among the institute workers of the United States and Canada.

The report of the treasurer shows that the States and Provinces have quite generally contributed their annual dues of $5 for the year 1907, and that there were 28 individual memberships. The committee desire to call attention to the importance of the membership of the association being extended so as to include all of the institute workers of the United States and Canada. If the State and Provincial directors were to call the attention of their lecturers and local managers to the importance of their joining this association, they would not only greatly increase the membership, but would consolidate the institute workers into an organization capable of materially aiding in directing the movement in agricultural education extension that is just now in its formative stage of progress and in need of wise counsel and influential friends to insure its success.

Respectfully submitted.

TAIT BUTLER,
G. A. PUTNAM,
T. L. CALVERT,
A. E. CHAMBERLAIN,
JOHN HAMILTON,
Committee.

REPORT OF THE TREASURER.

Account of John Hamilton, treasurer of the American Association of Farmers' Institute Workers, from October 23, 1907, to November 4, 1908.

DR.

To balance in hands of the treasurer, October 23, 1907	$334.82
To receipts from 38 States and Provinces	190.00
To receipts from individual membership dues	28.00
To interest on deposits	9.26
	562.08

CR.

By amount paid for printing 3,000 programmes	$20.00
By postage, janitor services, and stenographer	12.00
By balance in the hands of the treasurer November 4, 1908	530.08
	562.08

REPORT OF THE AUDITING COMMITTEE.

The undersigned committee, appointed to audit the accounts of John Hamilton, treasurer of the American Association of Farmers' Institute Workers, report that they have examined the accounts and have compared his vouchers with the credits claimed, and have found the same correct and the balance in his hands, November 4, 1908, to be $530.08.

(Signed) A. L. MARTIN,
LEWIS A. MERRILL,
Committee.

REPORT OF COMMITTEE ON ADDRESS OF THE PRESIDENT.

Your committee, to which was referred the address of President Butler, beg leave to submit the following:

(1) That, in the main, we fully concur in the views expressed by President Butler, and regard his address as a valuable contribution to the discussion of the proper sphere and function of the farmers' institute.

(2) We can not fully agree with the premise, so far as it relates to the farmers' institute work in general, that it is now or has been drifting, and we

do not believe that it will ever drift into the desired haven of greatest usefulness.

To continue the figure, the farmers' institute ship has constantly had steam on and the pilot has been diligent, faithful, and reasonably intelligent. We thank Doctor Butler, however, for pointing out so clearly some of the rocks and shoals, away from which we should steer our good ship.

(3) We agree that the instruction of the adult members of the farmer's family is an important purpose of the farmers' institute, but this is not the only purpose, and we believe that, as the work progresses and becomes fully established, the boys and girls will come in for a larger share of attention. It has been repeatedly and amply demonstrated that the farmers' institutes in which boys and girls have had a prominent part have been highly successful and profitable. Under the stimulus of incentive offered by the farmers' institute, farmer boys have opened the eyes of the farmers in an entire county by surpassing their fathers in corn production. We believe that no single conception of the function of the farmers' institute and no single plan of work will suffice for this great country of ours.

(4) We heartily commend Doctor Butler's plea that the home and the farm shall receive equal attention at the farmers' institute.

(5) We agree with Doctor Butler most heartily in his view that the farmers' institute work should be kept free from all political affiliations and entanglements in order that the institute work may continue to have the loyal support of thoughtful men in all political parties.

W. C. Latta,
Geo. McKerrow,
H. A. Morgan,
Committee.

REPORT OF COMMITTEE ON AMENDMENT TO THE CONSTITUTION.

The committee appointed to consider the advisability of increasing the membership fee of the several States, Territories, and Provinces beg to report that such change is not advisable at this time, in their judgment.

Andrew M. Soule,
T. L. Calvert,
C. M. Hanna,
Committee.

REPORT OF COMMITTEE ON RESOLUTIONS.

(1) Whereas the testimony of this meeting proves the efficiency of the women's institute: Therefore be it

Resolved, That equal emphasis be placed upon it and equal provision be made for them as for farmers' institute work.

(2) That the thanks of this meeting are hereby tendered to Dr. Jas. W. Robertson of Macdonald College, Quebec, for his attendance at this meeting and for his admirable address on the Macdonald School Movement in Canada.

(3) Whereas we cordially indorse the work already done in forwarding the interests of farmers' institutes by the U. S. Department of Agriculture through the Farmers' Institute Specialist; and

Whereas we believe the time has come for a material increase in the resources available for this work, to the end that investigations, experiments, and other forms of assistance in respect to the rapidly developing possibilities of institute work may be vigorously prosecuted: Therefore be it

Resolved, That the executive committee of this association be requested to confer as soon as practicable with the Office of Experiment Stations and with the Secretary of Agriculture relative to the needs of this work; and that the committee be further authorized to use all legitimate means to urge upon Congress the appropriation of a sum sufficient to enable the Department to develop adequately this phase of the work of the Department.

(4) *Resolved*, That the thanks of this meeting are hereby tendered to Secretary Wilson for his personal attendance and cordial words of welcome to the association; and to the officers of the association, particularly the president and secretary, to whose exertions the very large attendance and excellent programme may be largely attributed.

(5) *Resolved*, That this meeting place on record its appreciation of the friendly feeling that exists between the members of the institute and the Grange, and, in particular, we thank that body for their cordial invitation to meet with them in joint session.

(Signed) G. C. CREELMAN,
Chairman for the Committee.

STATISTICS OF FARMERS' INSTITUTES IN THE SEVERAL STATES, TERRITORIES, AND PROVINCES, 1908.

State, Territory, or Province.	Regular institutes.			Round-up institutes.			Normal institutes.		
	Sessions.	Attendance.	Average.	Sessions.	Attendance.	Average.	Sessions.	Attendance.	Average.
Alabama	51	8,244	161	42	507	20			
Alberta	180	12,600	70				3	75	25
Arkansas	25	1,365	54						
Colorado	240	38,930	162						
Connecticut	10	1,000	100						
Delaware	52	3,905	75						
Georgia	84	10,000	107						
Idaho	66	5,650	85						
Illinois	627	122,523	195	8	4,590	573			
Indiana	1,112	195,912	176	5	500	100	10	150	15
Iowa	300	105,000	350						
Kentucky	595	23,800	40						
Maine	97	14,143	145						
Maryland	117	8,903	76						
Massachusetts	156	18,426	118						
Michigan	969	121,654	126	11	5,390	490	10	260	26
Mississippi	222	24,817	112	8	1,115	140			
Montana	140	11,053	79						
Nebraska	602	93,824	156		1,200		11	165	15
New Jersey	113	9,500	84	5	1,400	280			
New Mexico	68	3,685	54						
New York	1,471	149,418	115	1	90	90	8	200	25
North Dakota	90	38,000	422						
Oklahoma	98	1,196	12						
Pennsylvania	989	145,353	146				9	1,233	137
Quebec	470	55,062	117				30	1,710	57
Rhode Island	8	1,100	137						
Saskatchewan	220	13,200	60				5	150	30
South Dakota	290	43,560	150						
Utah	288	26,926	94						
Vermont	48	5,160	108						
Washington	214	14,932	70						
West Virginia	388	24,676	62						
Wisconsin	549	85,944	156	11	3,300	300			
Wyoming	44	3,259	74						
Total	10,993	1,442,720	131	91	18,092	199	86	3,943	46

Statistics of farmers' institutes in the several States, Territories, and provinces, 1908—Continued.

State, Territory, or Province.	Independent institutes.			Institute trains.			Picnics, harvest-home meetings, etc.		State lecturers.	Cost.
	Sessions.	Attendance.	Average.	Days.	Stops.	Attendance.	Number.	Attendance.		
Alabama									9	$1,200.00
Alberta	110	4,400	40	52	52	5,500			25	8,500.00
Arkansas	7	210	30				3	3,600	9	
Colorado	7	600	85	15	38	6,710			33	7,724.46
Connecticut							3	1,100	12	125.00
Delaware							1	400	11	600.00
Georgia				35	150	150,000	2	2,000	15	4,000.00
Idaho				3	16	2,000			8	773.90
Illinois	50	15,000	300						2	24,670.03
Indiana									39	16,767.73
Iowa										8,000.18
Kentucky									15	11,330.00
Maine	12								12	3,000.00
Maryland	2	150	75	24	8	1,714			3	6,000.00
Massachusetts							2	800	69	1,877.26
Michigan				9	54	8,065	100	25,000	60	8,443.51
Mississippi							14	2,660	21	3,000.00
Montana	14	1,060	76						18	6,253.76
Nebraska									39	14,378.15
New Jersey									5	2,500.00
New Mexico									7	625.00
New York	115	35,000	300					25,000	73	23,400.00
North Dakota									3	6,721.65
Oklahoma									6	1,318.20
Pennsylvania	35	8,665	247				12	24,000	68	20,000.00
Quebec									17	6,500.00
Rhode Island									20	80.00
Saskatchewan	55	1,750	32				6	3,400	26	5,500.00
South Dakota	2	2,375	1,187						11	6,270.16
Utah							1	500	15	3,485.32
Vermont									10	2,584.05
Washington				12	77	11,910	30	1,264	18	5,000.00
West Virginia										
Wisconsin									40	13,492.45
Wyoming	1	100	100						12	
Total	410	71,310	174	150	395	185,899	174	89,724	731	224,120.81

INDEX OF NAMES.

Agee, Alva, 6, 25, 28, 63, 68.
Amoss, Wm. L., 18, 25, 63.
Backus, Dr. A., 6, 34, 68.
Barrows, Miss Anna, 32, 36.
Barto, D. O., 53.
Blair, Francis G., 52.
Boardman, John R., 22.
Bracken, J., 6, 25, 28, 68.
Burnett, E. A., 41, 67.
Butler, Tait, 7, 16, 29, 41, 57, 59, 69, 70.
Butterfield, K. L., 6, 18, 27, 68.
Calvert, T. L., 16, 17, 68, 69, 70.
Chamberlain, A. E., 6, 9, 18, 22, 33, 68, 69.
Christie, G. I., 22.
Connell, J. H., 6, 58, 59.
Connors, J. P., 22.
Cooley, E. G., 52.
Cottrell, H. M., 25.
Craig, H. A., 67.
Creelman, G. C., 6, 17, 18, 59, 68, 71.
Davenport, Eugene, 37, 52, 53.
Elliott, E. E., 25.
Ellis, Geo. B., 27.
Ellsworth, J. L., 6.
French, H. T., 6.
Garvin, J. B., 28.
Gigault, G. A., 31, 65.
Graham, A. B., 46, 57.
Green, S. B., 27.
Hall, Frank H., 6, 26, 44, 51, 57, 59, 62.
Hamilton, John, 6, 32, 69.
Hanna, C. M., 32, 40, 57, 70.
Holden, P. G., 26.
Hollowell, Mrs. W. R., 35, 36.
Hopkins, C. G., 53.
Hoverstad, T. A., 6, 17, 44, 68.
Howie, Mrs. Adda F., 33, 34, 68.
Hurd, W. D., 26.
Hutt, Mrs. W. N., 35.
Jesse, R. H., 52.
Kennedy, W. J., 60.
Kerr, W. J., 18.
Keyser, Val, 6, 22, 68.
Knapp, Seaman A., 55.
Knowles, Miss N. S., 36.
Latta, W. C., 9, 26, 70.
Linfield, F. B., 28, 40.
Lloyd, E. R., 6, 17, 27, 67, 68.
Lord, L. C., 53.
Mcdonald, Wm. C., 11, 13.
McIntyre, Charles, 41.
McKeen, B. Walker, 6, 40, 58.
McKerrow, George, 6, 9, 18, 28, 32, 68, 70.
Martin, A. L., 9, 18, 27, 31, 69.
Merrill, Lewis A., 69.
Miller, J. H., 18, 25, 58.
Morgan, H. A., 9, 70.
Patterson, H. J., 44.
Putnam, G. A., 6, 30, 36, 67, 68, 69.
Rankin, F. H., 6, 22, 68.
Raymond, Mrs. I. S., 26.
Robertson, James W., 10, 70.
Scherffius, W. H., 30.
Sheppard, J. H., 44.
Smith, C. D., 66.
Soule, A. M., 6, 26, 29, 30, 32, 68, 70.
Stabler, A., 18.
Stevens, F. L., 53, 57.
Stevens, Mrs. F. L., 6, 34, 68.
Taft, L. R., 6, 23, 25, 28, 31, 59, 68.
Tinsley, J. D., 6, 30, 68.
Towar, J. D., 28.
True, A. C., 16.
Van Rensselaer, Miss Martha, 6.
Webb, Wesley, 26.
Wells, Mrs. Helen, 36, 44.
West, J. A., 53.
Wilson, James, 16, 60, 70.
Withycombe, J., 28.
Witter, D. P., 30.
Working, D. W., 9, 59.
Worst, J. H., 58, 59.

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